

UNCLASSIFIED

AD NUMBER
AD872361
NEW LIMITATION CHANGE
TO Approved for public release, distribution unlimited
FROM Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; Jun 1970. Other requests shall be referred to Central Intelligence Agency, Office of Central Reference, 2430 E. Street, NW, Washington, DC 20505.
AUTHORITY
CIA ltr, 7 Sep 2004

THIS PAGE IS UNCLASSIFIED

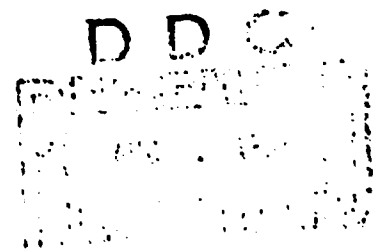
FOR OFFICIAL USE ONLY



CONSOLIDATED TRANSLATION SURVEY

Number 150

Through 30 June 1970



CENTRAL INTELLIGENCE AGENCY
Washington, D.C. 20505

FOR OFFICIAL USE ONLY

BEST AVAILABLE COPY

CONSOLIDATED TRANSLATION SURVEY

FOR JUNE 1970

TABLE OF CONTENTS

	<u>Page</u>
Preface	iii
Request for Copies	iv
USSR	
Economic	1
Political	9
Military	11
Sociological	14
Eastern Europe	
Economic	15
Political	20
Military	21
Sociological	22
Western Europe	
Economic	22
Political	23
Military	23
Africa	
Economic	23
Political	24
Military	25
Geographic	25
Sociological	26
Middle East	
Economic	26
Political	27
Military	29
Geographic	29
Sociological	30
Biographic	30
Far East	
Economic	30
Political	32
Military	35
Sociological	35

	<u>Page</u>
Latin America	
Economic	36
Political	37
Geographic	39
Sociological	39
North America	
Economic	39
Political	39
Military	40
Sociological	40
World Wide	
Economic	40
Scientific	
Aeronautics	41
Agriculture	41
Astronomy & Astrophysics	44
Atmospheric Sciences	44
Behavioral & Social Sciences	45
Biological & Medical Sciences	46
Chemistry	71
Earth Science & Oceanography	79
Electronics & Electrical Engineering	83
Energy Conversion (Non-Propulsive)	89
Materials	91
Mathematical Sciences	116
Mechanical, Industrial, Civil, & Marine Engineering	116
Methods & Equipment	124
Navigation, Communications, Detection & Countermeasures	125
Nuclear Science & Technology	126
Physics	127
Propulsion & Fuels	136
Space Technology	137
Miscellaneous	138
Information Received on Cover-to-Cover Translations	140
Index to Authors	308

CONSOLIDATED TRANSLATION SURVEY

PREFACE

This survey is prepared monthly from lists received through the cooperation of US government agencies and includes universities, research institutions, and commercial translation organizations. It is a compilation of projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identifications of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (*), and when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

Scientific and technical translations are grouped according to the COSATO subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.

REQUEST FOR COPIES

Request for copies of published projects should be made direct to the designated producing organization.

Addresses of producers to follow:

ACSI - (see DIA)

AEC - Atomic Energy Commission
(see CFSTI)

AFCRL Res Lib

Air Force Cambridge Research Laboratories
Research Library
Office of Aerospace Research
United States Air Force
Laurence G. Hanscom Field
Bedford, Massachusetts
ATTN: CRMCLR

AGI

American Geological Institute
2201 M Street N. W.
Washington, D. C. 20037

Amer Inst of Biol Sci

American Institute of Biological Sciences
3900 Wisconsin Avenue N. W.
Washington, D. C.

AIP

American Institute of Physics
335 East 45th Street
New York, New York 10017

Amer. Fisheries Soc

American Fisheries Society
Washington Building
15th & New York Avenue
Washington, D. C.

ANL - Argonne National Laboratory, Illinois
(see AEC)

APL/JHU

Applied Physics Laboratory
The Johns Hopkins University
8621 Georgia Avenue
Silver Spring, Maryland 20910

ATS

Associated Technical Services, Incorporated
P. O. Box 271
East Orange, New Jersey 07019

BCF - Bureau of Commercial Fisheries
(see Department of Interior)

BISI

British Iron and Steel Industry Translation Service
The Iron and Steel Institute
4 Grosvenor Gardens
London, S. W. 1, England

BNL - (see AEC)

Bu Reclam (or) B R

Bureau of Reclamation
Technical Library
Denver, Colorado

CB

Consultants Bureau Enterprises, Incorporated
227 West 17th Street
New York, New York 10011

C.E. - (see CEGB)

CEGB

Central Library
Central Electricity Generating Board
Room 601, Sudbury House
15 Newgate Street
London, E. C. 1

CFSTI

Clearinghouse for Federal Scientific and
Technical Information
Port Royal and Braddock Roads
Springfield, Virginia 22151

CTT

Columbia Technical Translations
5 Vermont Avenue
White Plains, New York 10600

DDC

Defense Documentation Center
Cameron Station
Alexandria, Virginia 22314

Dept of Interior

Department of Interior
Room 8015
Branch of Foreign Fisheries (Translations)
Division of International Affairs
Bureau of Commercial Fisheries
Washington, D. C. 20240

DIA

Defense Intelligence Agency
Washington, D. C. 20301

DRB - (see DSIS)

DSIS (DRB)

Director, Scientific Information Service
Defense Research Board
Dept of National Defense
Ottawa, Canada

EE - English Electric Company
(see CEGB)

ESB - Eire Electricity Supply Board, Dublin
(see CEGB)

FP

Faraday Press, Inc.
84 Fifth Avenue
New York, New York, 10011

FSTC - Foreign Science and Technology Center
(see DDC)

FTD - Foreign Technology Division
(see DDC)

HB

Henry Brutcher Technical Translations
P. O. Box 157
Altadena, California 91001

IEEE

Institute of Electrical and Electronics Engineers
275 Madison Avenue
New York, New York 10016

JPRS - Joint Publications Research Service

U. S. Department of Commerce
Clearinghouse for Federal Scientific and
Technical Information
Port Royal and Braddock Roads
Springfield, Virginia 22151

NASA

National Aeronautics and Space Administration
1512 H Street N. W.
Washington, D. C. 20546

NavShips

Department of the Navy
Naval Ship Systems Command
Washington, D. C. 20360

NBS

National Bureau of Standards
ATTN: Dr. Henry Birnbaum
Room 314, South Building
Washington, D. C.

NIC

Commander, Naval Intelligence Command
Naval Intelligence Command Headquarters
NIC-133E
Washington, D. C. 20350

NLL

National Lending Library for Science and
Technology
Boston Spa, Yorkshire, England

NMS

Navy Medical School
National Naval Medical Center
Bethesda, Maryland 20014

NOO

U. S. Naval Oceanographic Office
Code 4400
Washington, D. C. 20390

NRL

Naval Research Laboratory
Washington, D. C. 20390

NSRDC

Naval Ship Research and Development Center
Washington, D. C. 20007

NTC

National Translation Center
John Crerar Library
35 West 33rd Street
Chicago, Illinois 60616

OA

Overseas Activities Section
Electricity Council
30 Milbank, S. W. 1 London

ORNL - Oak Ridge National Laboratory
(see AEC)

OSA - Optical Society of America, Inc.
(see AIP)

PG

Petroleum Geology
Box 171
McLean, Virginia 22101

PP

Pergamon Press, Inc.
44-01 21st Street
Long Island City, New. York 11101

PS

Primary Sources
11 Bleecker Street
New York, New York 10012

Rand Corp - (see NTC or CFSTI)

S/E S/P

Scripta Publishing Corporation
1511 K Street N. W.
Washington, D. C. 20005

SIC

Scientific Information Consultants, Limited
661 Finchley Road
London, N. W. 2, England

SLAC - Stanford Linear Accelerator Center
(see AEC)

Survey of China Mainland Press
or
Survey of China Mainland Magazines

American Consulate General
Hong Kong

UCRL

University of California
Lawrence Radiation Laboratory
Livermore, California
(see AEC)

USSR
Economic

Motor Industry Discusses 1970 Plan, 8 pp.
RUSSIAN, per, Avtomobil'nyy Transport, Moscow,
No 3, Mar 1970, pp 46-58.
JPRS 50556

National Economic Plan and 1970 Budget, 7 pp.
RUSSIAN, per, Bukhgalterskiy Uchet, Moscow,
No 3, 1970, pp 3-8.
JPRS 50673

Plan for New Construction Technology in 1970,
by A. T. Brukov, 8 pp.
RUSSIAN, per, Byulleten' Stroitel'noy Tekhniki,
Moscow, Feb 1970, pp 5-8.
JPRS 50666

Soviet Construction Projects Approved, 6 pp.
RUSSIAN, per, Byulleten' Stroitel'noy Tekhniki,
Moscow, Feb 1970, pp 37-38.
JPRS 50666

Gosbank Role in Leningrad's Economy Analyzed,
by N. Meranishchev, 11 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 3, 1970,
pp 3-10.
JPRS 50599

Problems of Economic Control Discussed, by
N. Smirnov, 11 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 3, 1970,
pp 11-18.
JPRS 50599

Reform and Gosbank's Role in Armenia Discussed,
by A. Papovyan, 8 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 3, 1970,
pp 19-24.
JPRS 50599

Production Development Fund: Formation and Use,
by V. Dyskin, S. Chernikov, 8 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 3, 1970,
pp 84-87.
JPRS 50599

Lenin on Money, Credit, Banks Discussed, 13 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 4, 1970,
pp 7-16.
JPRS 50662

USSR
Economic (Contd)

Credit's Role in Industrialization Discussed, by
V. Karabekov, 13 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 4, 1970,
pp 36-44.
JPRS 50662

Credit's Role in National Republics Discussed,
by M. Zotov, 11 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 4, 1970,
pp 63-70.
JPRS 50662

Data on Development of USSR State Bank, 12 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 4, 1970,
pp 87-95.
JPRS 50662

Improving Production of Non-Woven Materials,
5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 7, Feb 1970, p 11.
JPRS 50636

Uzbek Economic and Cultural Progress Traced, by
Ya. S. Nasriddinova, 11 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 12, Mar 1970, pp 3-4.
JPRS 50554

Industrial Output for January-February 1970, 6 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 12, Mar 1970, p 5.
JPRS 50554

Problems and Progress of Leningrad Firms, by
S. Shrulev, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 12, Mar 1970, p 8.
JPRS 50554

Questions Answered on Fixed Capital Revaluation,
6 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 12, Mar 1970, p 16.
JPRS 50554

Sel'Khoztekhnika Chairman Analyzes Activities,
by A. A. Yezhevskiy, 12 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 14, Apr 1970, pp 4-5.
JPRS 50546

USSR
Economic (Contd)

Profit Distribution in Construction Explained,
7 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 14, Apr 1970, p 8.
JPRS 50629

Changes in Construction Accounting to be Made,
Yu. Uvarov, 6 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 14, Apr 1970, p 9.
JPRS 50583

Current Problems of Advertising Discussed,
7 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 14, Apr 1970, p 17.
JPRS 50583

Proposals to Improve Demand Forecasting, by
A. Bredov, A. Levin, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 15, Apr 1970, p 17.
JPRS 50556

USSR Chairman Describes Republic Developments,
by N. A. Yasnov, 15 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 16, Apr 1970, pp 3-5.
JPRS 50554

Problems in Developing Chemical Industry Cited,
by N. Fedorenko, 10 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 16, Apr 1970, pp 17-18.
JPRS 50602

Development of Regions East of Urals Recommended,
by N. Simzen, V. Udovenko, 6 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 16, Apr 1970, p 19.
JPRS 50554

Labor Productivity Improved in Sverdlovsk, by
Ya. Ryabov, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 17, Apr 1970, p 15.
JPRS 50536

USSR
Economic (Contd)

Faster Prefabricated Housing Construction Urged,
by N. Kachalov, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 17, 1970, p 17.
JPRS 50629

Donetsk Automated Control System, by
V. Shevchenko, 22 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 18, May 1970, pp 1-8.
JPRS 50632

Economics of Electric Power Stations Discussed,
by K. Knyazev, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 19, 1970, p 6.
JPRS 50699

Economic Operations of Port of Nakhodka Described,
by O. Ol'khovskaya, L. Konvalov, 5 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow,
No 21, May 1970, p 24.
JPRS 50700

Lenin's Views on Economic Planning Traced, by
N. I. Fedorenko, 17 pp.
RUSSIAN, per, Ekonomika i Matematicheskiye Metody,
Moscow, No 2, Mar-Apr 1970, pp 163-174.
JPRS 50554

Role of Credits in Economic Reform Reviewed,
by I. Shanchenko, 6 pp.
RUSSIAN, per, Ekonomika i Zhizn, Tashkent, No 10,
1969, pp 52-55.
JPRS 50554

Uzbek Progress Rebuffs Capitalist Slander, by
M. Usminina, 7 pp.
RUSSIAN, per, Ekonomika i Zhizn, Tashkent, No 10,
1969, pp 86-89.
JPRS 50554

Uzbekistan's 1970 Economic Plan Outlined, by
S. Ziyadullayev, 14 pp.
RUSSIAN, per, Ekonomika i Zhizn, Tashkent,
No 1, 1970, pp 3-11.
JPRS 50614

USSR

Economic - Contd.

Uzbek Construction to Shift to Reform Operations,
by V. Suzdal'tsova, 7 pp.
RUSSIAN, per, Ekonomika i Zhizn', Tashkent,
No 1, 1970, pp 70-74.
JPRS 50614

Effectiveness of Carpathian Lumber Combines
Discussed, by M. Zamikhovskiy, P. Studenyak, 8 pp.
RUSSIAN, per, Ekonomika Sovetskoy Ukrainy, Kiev,
No 12, Dec 1969, pp 67-70.
JPRS 50636

Importance of Economic Forecasting Discussed,
by F. Khilyuk, 11 pp.
RUSSIAN, per, Ekonomika Sovetskoy Ukrainy, Kiev,
No 2, 1970, pp 1-7.
JPRS 50688

Sources of Real Income in Ukraine Analyzed,
by V. Anisimov, 12 pp.
RUSSIAN, per, Ekonomika Sovetskoy Ukrainy,
Kiev, No 2, Feb 1970, pp 8-14.
JPRS 50688

Methods for Investment Calculations Analyzed,
by A. Kovalev, 9 pp.
RUSSIAN, per, Ekonomika Sovetskoy Ukrainy, Kiev,
No 2, Feb 1970, pp 57-60.
JPRS 50688

Construction Tasks of 1970 Plan Outlined, by
A. Repenko, 12 pp.
RUSSIAN, per, Ekonomika Stroitel'stva,
Moscow, Feb 1970, pp 3-11.
JPRS 50537

New Financing of Construction Industry Dis-
cussed, by P. Podshivalenko, 12 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow,
Feb 1970, pp 11-19.
JPRS 50537

Questions on Construction Economics Answered,
10 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow,
Feb 1970, pp 59-63.
JPRS 50537

USSR

Economic - Contd.

Construction Industry in Belorussia Discussed,
by A. Smirnov, 6 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow,
No 3, 1970, pp 4-8.
JPRS 50666

Questions on Construction Job Estimates Answered,
8 pp.
RUSSIAN, per, Ekonomika Stroitel'stva, Moscow,
No 3, 1970, pp 66-70
JPRS 50666

Current Value of Lenin's Financial Policy
Analyzed, by V. Garbuzov, 18 pp.
RUSSIAN, per, Finansy SSSR, Moscow, No 4,
1970, pp 3-16.
JPRS 50560

Socialist Pledges of Finance Workers Given,
5 pp.
RUSSIAN, per, Finansy SSSR, Moscow, No 4,
1970, pp 17-20.
JPRS 50560

Financial Work in the RSFSR Reviewed, by
I. Fadeyev, 15 pp.
RUSSIAN, per, Finansy SSSR, Moscow, No 4,
1970, pp 21-32.
JPRS 50560

Aspects of Centralized Planning Analyzed, by
G. Kosyachenko, 14 pp.
RUSSIAN, per, Finansy SSSR, Moscow, No 4,
1970, pp 54-64.
JPRS 50560

Theory and Practice of Cost Accounting Reviewed,
by N. Garetskyi, 17 pp.
RUSSIAN, per, Finansy SSSR, Moscow, No 4, 1970,
pp 65-78.
JPRS 50560

Worker Bonus Regulations Updated, 10 pp.
RUSSIAN, per, Gosudarstvennyy Komitet Soveta
Ministrov SSSR po Voprosam Truda i Zarabotnoy
Platy -- Byulleten', Moscow, No 3, 1970,
pp 8-15
JPRS 50664

Development of Siberian Chemical Industry, by Yu. A. Fridman, 8 pp.
RUSSIAN, per, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, Novosibirsk, No 1, 1970, pp 128-132.
JPRS 50602

Machine Building in Western Siberia, by S. S. Sergeyev, 13 pp.
RUSSIAN, per, Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR, Novosibirsk, No 1, 1970, Issue 1, pp 139-147.
JPRS 50602

Armenian Material-Technical Supply in 1970, by Z. Armagaryan, 5 pp.
RUSSIAN, per, Kommunist, Yerevan, 26 Mar 1970, p 2.
JPRS 50554

Lithuanian Social Structure, Manpower Analyzed, by K. Meshkauskas, V. Yanushkevichyus, 9 pp.
RUSSIAN, per, Kommunist, Vil'nius, No 4, pp 29-35.
JPRS 50699

Food System for Agricultural Labor Described, 6 pp.
RUSSIAN, np, Komsomol'skaya Pravda, Moscow, 27 Mar 1970, p 1.
JPRS 50623

Types of Wages Paid on Sovkhoz, 11 pp.
RUSSIAN, np, Leninskoye Znamya, Moscow, 10 Apr 1970, p 2.
JPRS 50558

Service on Railroads Found Worse, 7 pp.
RUSSIAN, per, Literaturnaya Gazeta, Moscow, No 15, 8 Apr 1970, pp 12, 13.
JPRS 50537

Lenin's Concern for Stock Control Stressed, by B. Mitel'man, 11 pp.
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, Moscow, No 1, 1970, pp 1-9.
JPRS 50632

Wholesale Trade of Capital Goods Discussed, by V. S. Kurotchenko, 12 pp.
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, Moscow, No 1, 1970, pp 28-36.
JPRS 50632

Supply Specialists Discuss Wholesale Trade, by L. M. Gatovskiy, A. A. Yakobi, 13 pp.
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, Moscow, No 1, Jan 1970, pp 50-59.
JPRS 50632

Supply Organs Urged to Expand Customer Services, by A. M. Belyakov, 7 pp.
RUSSIAN, per, Material'no-tekhicheskoye Snabzheniye, Moscow, No 2, 1970, pp 19-25.
JPRS 50575

Indicators of the Economic Performance of Supply Organizations, by A. I. Baskin, V. I. Odess, 9 pp.
RUSSIAN, per, Material'no-tekhicheskoye Snabzheniye, Moscow, No 2, 1970, pp 25-31.
JPRS 50575

Improved Packaging of Shipments for the Arctic, by Yu. Perevozchikov, 6 pp.
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, Moscow, No 2, 1970, pp 37-40.
JPRS 50556

Organizational Aspects of Supplying Construction Sites Discussed, by V. Tyurin, 7 pp.
RUSSIAN, per, Material'no-tekhicheskoye Snabzheniye, Moscow, No 2, 1970, pp 44-49.
JPRS 50575

Organization of Material-Technical Supply for the Industrial Enterprise, by V. Konstantinov, 9 pp.
RUSSIAN, per, Material'no-tekhicheskoye Snabzheniye, Moscow, No 2, 1970, pp 60-66.
JPRS 50575

UKSSR Glavsnab Chief Describes Republic Supply, by V. Tychinin, 9 pp.
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, Moscow, No 4, 1970, pp 46-50.
JPRS 50628

State Planning of Material Resources, by A. M. Lalayants, 13 pp.
RUSSIAN, per, Material'no-Tekhnicheskoye Snabzheniye, Moscow, No 4, 1970, pp 79-86.
JPRS 50628

USSR
Economic Contd

Interbranch Balance and Proportions of the National Economy, 147 pp.
RUSSIAN, bk, Mezhotraslevoy Balans i Proportsii Narodnogo Khozyaystva, 1969, 183 pp.
JPRS 50543

Progress in CEMA Economic Integration Traced, by O. Bogomolov, 16 pp.
RUSSIAN, per, Mirovaya Ekonomika i Mezhdunarodnyye Otnosheniya, Moscow, No 4, Apr 1970, pp 55-66.
JPRS 50666

Growth and Progress of Dairy Industry Traced, 12 pp.
RUSSIAN, per, Molochnaya Promyshlennost', Moscow, No 4, Apr 1970, pp 1-6.
JPRS 50636

1970 Maritime Transport Plan Detailed, by S. Lukyanchenko, 5 pp.
RUSSIAN, per, Morskoy Flot, Moscow, No 2, Feb 1970, pp 3-5.
JPRS 50583

Soviet and Foreign Shipowners Pacts Discussed, by V. Novikov, 8 pp.
RUSSIAN, per, Morskoy Flot, Moscow, No 3, Mar 1970, pp 60-62.
JPRS 50636

Specialization for Kazakh Machine Building, by N. Dulatov, 9 pp.
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana, Alma-Ata, No 2, Feb 1970, pp 30-34.
JPRS 50632

Rules for Forming Economic Incentive Funds, by A. Galanin, 18 pp.
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana, Alma-Ata, No 2, Feb 1970, pp 87-94.
JPRS 50632

Kazakhstan Administrative System Overstaffed, by P. Antonov, 7 pp.
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana, Alma-Ata, No 3, 1970, pp 41-44.
JPRS 50614

Oil Extraction Industry Problems Must be Solved, by V. S. Shashin, 7 pp.
RUSSIAN, per, Neftyanik, Moscow, No 3, Mar 1970, pp 4-5.
JPRS 50585

USSR
Economic (Contd)

Economy's Needs for Supply Planning Explained, by Vladimir Martinovich Lagutkin, 7 pp.
RUSSIAN, per, NTO-SSSR, Moscow, No 2, Feb 1970, pp 17-20.
JPRS 50673

UZBEK Agriculture Minister Appeals for Aid, by N. Khudayberdiyev, 7 pp.
RUSSIAN, per, Partiynaya Zhizn', Tashkent, No 3, 1970, pp 31-36.
JPRS 50636

Measures for Raising Group B Output Reviewed, by L. Opatskiy, 7 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 12, Dec 1969, pp 11-16.
JPRS 50537

Improvements Needed in Pricing Consumer Goods, 6 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 2, 1970, pp 75-78.
JPRS 50547

Lenin's Views on National Economic Planning Discussed, by A. Yefimov, 15 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 4, 1970, pp 15-26.
JPRS 50586

USSR Economic Zoning Practices Surveyed, by S. Tokarev, 15 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 4, 1970, pp 48-58.
JPRS 50586

Problems of Socialist Developing Nations Traced, by E. Utkin, 14 pp.
RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No 4, Apr 1970, pp 82-92.
JPRS 50666

Need for Centralized Management Stressed, by O. Nekrasov, L. Pekarskiy, 12 pp.
RUSSIAN, per, Politicheskoye Samoobrazovaniye, Moscow, No 3, 1970, pp 12-19.
JPRS 50560

Statistics on Soviet Economy and Education Cited, 6 pp.
RUSSIAN, per, Politicheskoye Samoobrazovaniye, Moscow, No 3, 1970, pp 45-47.
JPRS 50560

Economic Reform Promotes Retail Trade Incentive, by Ya. Orlov, 5 pp.
RUSSIAN, np, Pravda, Moscow, 23 Nov 1969, p 3.
JPRS 50583

Official Statistics from the Soviet Central Statistical Administration on the Fulfillment of the 1969 State Plan for the Development of the National Economy of the USSR. 25 pp.
RUSSIAN, np, Pravda, 25 Jan 1970, pp 1-2.
AIR/FTD/INT-23-167-70

Scientific Achievements in Production Under Economic Reform Listed, by A. Shternov, 5 pp.
RUSSIAN, np, Pravda Ukrainy, Kiev, 28 Apr 1970, p 2.
JPRS 50662

CEMA Nations Profit from Integrated Power System, by M. A. Samkov, G. B. Serbinovskiy, 9 pp.
RUSSIAN, per, Promyshlennaya Energetika, Moscow, No 3, 1970, pp 2-6.
JPRS 50583

Fulfillment of Current Belorussian Five-Year Plan Cited, by F. L. Kokhonov, 7 pp.
RUSSIAN, per, Promyshlennost' Belorussii, Minsk, No 1, 1970, pp 3-7.
JPRS 50586

Planning with Scientific-Technological Progress, by Ye. I. Gavrilov, 6 pp.
RUSSIAN, per, Promyshlennost' Belorussii, Minsk, No 3, 1970, pp 10-12.
JPRS 50688

Manpower Distribution and Use Discussed, by N. A. Gorbatox. 5 pp.
RUSSIAN, per, Promyshlennost' Belorussii, No 3, Mar 1970, pp 18-19.
JPRS 50585

Social Development Plans Urged for Industry, by O. G. Gobarov, 7 pp.
RUSSIAN, per, Promyshlennost' Belorussii, Minsk, No 3, Mar 1970, pp 20-22.
JPRS 50585

Mobilization of Stored Material Resources Urged, by A. I. Mishchuk, 8 pp.
RUSSIAN, per, Promyshlennost' Belorussii, Minsk, No 3, 1970, pp 30-32.
JPRS 50688

New System for Increasing Progress Rate Cited, by I. L. Chernyy, 6 pp.
RUSSIAN, per, Promyshlennost' Belorussii, Minsk, No 3, 1970, pp 44-46.
JPRS 50688

Belorussia Works for Better Management Practices, by S. I. Lukashevich, 6 pp.
RUSSIAN, per, Promyshlennost' Belorussii, Minsk, No 4, 1970, pp 71-73.
JPRS 50688

Planning Institute Improves Labor Organization, by A. F. Pisarev, 6 pp.
RUSSIAN, per, Promyshlennoye Stroitel'stvo, Moscow, No 4, 1970, pp 46-47.
JPRS 50666

Scientific Achievements Should be Put Into Practice, by Yu. Marushchak, E. Yampol'skiy, 5 pp.
UKRAINIAN, np, Radyanska Ukraina, Kiev, 29 Nov 1969, p 4.
JPRS 50614

Adver Meet Official Traces Operational Problems, by M. Bazarov, 11 pp.
RUSSIAN, per, Rechnoy Transport, Moscow, No 3, Mar 1970, pp 1-3.
JPRS 50556

Future Plans for Moscow River Transport Discussed, by B. Yegorov. 6 pp.
RUSSIAN, per, Rechnoy Transport, Mar 1970, pp 8-10.
JPRS 50583

Number 40 River Transport Work and Problems Discussed, by N. Zhivotkevich, 6 pp.
RUSSIAN, per, Rechnoy Transport, Moscow, Mar 1970, pp 10-11.
JPRS 50583

Number 59 River Transport Cargo Plans Reviewed,
by S. Lobantsev, 7 pp.
RUSSIAN, per, Rechnoy Transport, Moscow,
Mar 1970, pp 12-13.
JPRS 50583

More Efficient Use of Specialists Needed, by
N. Mikhaylova, 15 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow,
No 2, 1970, pp 11-19.
JPRS 50585

Shchekino Methods Urged for Chemical Industry,
by K. Cherednichanko, 16 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow,
No 2, 1970, pp 74-83.
JPRS 50585

Reduction of Rural Labor Turnover Needed, by
V. Churakov, 12 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow,
No 2, 1970, pp 124-130.
JPRS 50585

Provisions for Part-Time Workers Cited, by
V. Silayev, 8 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow,
No 2, 1970, pp 136-140.
JPRS 50585

Experiment Conducted in Bashkir Association,
by Z. Fakhretdinov, 10 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow,
Mar 1970, pp 39-47.
JPRS 50585

Material Incentive Fund in Trade Analyzed, by
Ye. Fonarev, 7 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Mar 1970,
pp 48-52.
JPRS 50585

Shchekino Experiment Conducted at Perm' Plant,
by V. Popov, 9 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow,
Mar 1970, pp 53-59.
JPRS 50585

Automating Construction Planning and Management,
by L. Golub, 5 pp.
RUSSIAN, np, Sovetskaya Estoniya, Tallinn,
3 Apr 1970, p 2.
JPRS 50537

Theft in Latvian Industry Berated, by
A. Kayryalis, 6 pp.
RUSSIAN, per, Sovetskaya Litva, Vil'nyus,
4 Apr 1970, pp 3-4.
JPRS 50623

Higher Pay Urged for New Production Teams,
by S. Ilarionov, A. Yakovenko, 5 pp.
RUSSIAN, per, Sovetskaya Rossiya, Moscow,
7 Apr 1970, pp 2-3.
JPRS 50558

Effective Management Required for Industrial
Gains, by Ye. Lazutkin, 6 pp.
RUSSIAN, np, Sovetskaya Rossiya, 15 Apr 1970,
p 2.
JPRS 50662

V. Prokhorov Cites Trade Union Achievements,
by V. Prokhorov, 6 pp.
RUSSIAN, np, Sovetskaya Rossiya, Moscow,
19 Apr 1970, p 3.
JPRS 50558

Economic Reform of Consumer Cooperatives Noted,
by A. Balashov, 5 pp.
RUSSIAN, np, Sovetskaya Torgovlya, Moscow, 28
Mar 1970, p 3.
JPRS 50629

Facts and Figures on Consumer Goods Cited, 15 pp.
RUSSIAN, per, Sovetskaya Torgovlya, Moscow, No 4,
Apr 1970, pp 58-63.
JPRS 50700

Guidance of State Arbitration Commissions Viewed,
by A. M. Shkuro, T. I. Gulyayeva, 9 pp.
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,
Moscow, No 1, 1970, pp 94-97.
JPRS 50425

Automated Control of Enterprises Examined, by
I. M. Bobko, L. V. Gal'perin, 10 pp.
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,
Mar 1970, pp 106-112.
JPRS 50425

Role of Law in Regulation of Economic Relations,
by S. S. Alekseyev, 14 pp.
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,
Moscow, No 4, 1970, pp 60-69.
JPRS 50628

Cooperation Among CEMA Countries Described,
by Ye. T. Usenko, 16 pp.
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,
Moscow, No 4, 1970, pp 78-82.
JPRS 50605

Glass and Ceramics Industry Ends Five-Year Plan,
7 pp.
RUSSIAN, per, Steklo i Keramika, Moscow, No 3,
1970, pp 1-3.
JPRS 50605

Northern Construction Bases Lack Coordination,
by M. Sudarev, 5 pp.
RUSSIAN, np, Stroitel'naya Gazeta, Moscow,
6 Mar 1970, p 3.
JPRS 50537

Increased Wages Promote Production Efficiency,
by G. N. Shehebunayev, 8 pp.
RUSSIAN, per, Stroitel'nyye Materialy, Moscow,
No 3, Mar 1970, pp 9-12.
JPRS 50536

CEMA Members Cooperate in Construction Materials,
by V. I. Gudkov, 5 pp.
RUSSIAN, per, Stroitel'nyye Materialy, Moscow,
Apr 1970, pp 9-10.
JPRS 50636

Transportation Problems in Ukraine Discussed,
by V. M. Pelykh, V. F. Vasilishin, 7 pp.
RUSSIAN, per, Tekhnologiya i Organizatsiya
Proizvodstva, Kiev, No 1, 1970, pp 15-18.
JPRS 50583

Industries Experiencing a Shortage of Loaders,
by I. Seryskov, 5 pp.
RUSSIAN, np, Trud, Moscow, 12 Mar 1970, p 3.
JPRS 50586

Minch Chairman extols Development of Siberia,
by N. A. Yasnov, 7 pp.
RUSSIAN, np, Trud, Moscow, 16 Apr 1970, p 2.
JPRS 50554

Industrial Work Conditions Must be Modernized,
by A. Biryukova, 7 pp.
RUSSIAN, np, Trud, Moscow, 30 Apr 1970, p 3.
JPRS 50710

Aviation Minister Describes Aeroflot's progress,
by B. Bugayev, 5 pp.
RUSSIAN, np, Trud, Moscow, 15 May 1970, p 2.
JPRS 50700

Whales and Whaling in the Antarctic Second Sector,
by B. A. Zenkovich.
RUSSIAN, per, Trudy VNIRO, Vol 66, 1969, pp 249-266.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 156

Technical Aid Agreement with Iran Announced, 9 pp.
RUSSIAN, per, vedomosti Verkhovnogo Soveta SSSR,
Moscow, No 11, 13 Mar 1970, pp 107-113.
JPRS 50556

International Forms of Socialist Socialization
of Labor, by Yu. M. Tolypin, 11 pp.
RUSSIAN, per, Vestnik Moskovskogo Universiteta,
Moscow, No 2, 1970, pp 70-77.
JPRS 50583

Report by the Minister of the River Fleet
RSFSR, by S. A. Kuchkin, 8 pp.
RUSSIAN, per, Vodnyy Transport, Moscow,
28 Apr 1970, p 1.
JPRS 50583

Conference Discusses Migration Control, by
V. Kamyshov, 5 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 12,
Dec 1969, pp 148-150.
JPRS 50699

Records on Foreign Trade Effectiveness Dis-
cussed, by L. Avdeeva, 5 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow,
No 3, 1970, pp 130-132.
JPRS 50537

Interbranch Balance Sheet Reports Fixed Assets,
by M. Eydel'man, 19 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 4,
1970, pp 71-83.
JPRS 50599

Economist Hits Western Critics of USSR Planning,
by Yu. Ol'sevich, 17 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 4,
1970, pp 116-126.
JPRS 50599

USSR
Economic (Contd)

Economic Level of Armenia SSR Compared to USSR as a Whole, by K. Vermishev, 9 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 4, 1970, pp 127-131.
JPRS 50662

The Economics of Scientific-Technical Progress, by L. Dolgikh, I. Pakhlín, 11 pp.
RUSSIAN, per, Voprosy Ekonomiki, Moscow, No 4, 1970, pp 151-155.
JPRS 50662

Greater Efficiency Required in Railroad Transport, 8 pp.
RUSSIAN, per, Zheleznodorozhnyy Transport, Moscow, Mar 1970, pp 3-6.
JPRS 50700

USSR Foreign Trade Undergoing Scrutiny, by Curt Zinnemann, 5 pp.
GERMAN, np, Handelsblatt, Duesseldorf, 27 Apr 1970, p 3.
JPRS 50583

Information Service System in the Marine Fisheries Economy of the USSR, by G.K. Wojtowski, 3pp.
POLISH, per, Technika i Gospodarka Morska, vol 20 no 2, April 1970, pp. 65-67.
*USDI/BCF TT 70-55129

Political

Uzbek Party Secretary Extols Friendship of Peoples, by Sharaf Rashidov, 5 pp.
RUSSIAN, np, Golos Rodiny, Moscow, 16 Mar 1970, p 2.
JPRS 50623

Socialism Developing Grandly in Turkmenistan, by M. Gapurov, 5 pp.
RUSSIAN, np, Izvestiya, Moscow, 16 Apr 1970, p 3.
JPRS 50578

Lenin's Ideas are Living and Winning, 12 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 3-12.
JPRS 50653

USSR
Political (Contd)

V. I. Lenin and the Alliance Between the Working Class and the Peasantry in the Struggle for Socialism, by Todor Zhivkov, 17 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 13-26.
JPRS 50653

The Triumph of the Leninist Ideas on Proletarian Internationalism, by Yumzhagiyn Tsedenbal, 15 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 27-38.
JPRS 50653

The Guiding Star of the Revolution, by Gus Hall, 5 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 39-42.
JPRS 50653

Lenin's Party is a Party of Innovators, by Sh. Rashidov, 18 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 43-57.
JPRS 50653

The National and the International Responsibility of the Communists, by A. Snehkus, 14 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 58-69.
JPRS 50653

The Invincible Union of Soviet Republics, by I. Bodyul, 13 pp.
RUSSIAN, per, Kommunist, No 6, Apr 1970, pp 70-80
JPRS 50653

Loyalty to the Ideas of Leninism, by V. Tolstikov, 13 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 80-91.
JPRS 50653

Soviet Literature--the Embodiment of Lenin's Esthetic Principles, by Ya. Myasnikov, 16 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 92-104.
JPRS 50653

The Most Important Stages in the Struggle of the Soviet People Against the Fascist Aggressors, by M. Zakharov, 15 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970, pp 105-116.
JPRS 50653

USSR
Political (Contd)

USSR
Political (Contd)

A Great Ideological Heritage, by G. Obichkin,
12 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970,
pp 117-123.
JPRS 50653

Brief Review of New Books, 8 pp.
RUSSIAN, per, Kommunist, Moscow, No 6, Apr 1970,
pp 124-128.
JPRS 50653

Achievements of Estonian Communist Party
Reviewed, by I. Kebin, 16 pp.
RUSSIAN, per, Kommunist Estonii, Tallin,
No 4, Apr 1970, pp 3-16.
JPRS 50655

Young People's Friends Have Great Influence,
by M. Vayserberg, 5 pp.
RUSSIAN, np, Komsomlets Uzbekistana,
Tashkent, 17 Feb 1970, p 3.
JPRS 50578

Lenin's Greatest Service Was Development of
Marx's Legacy, by V. S. Tolstikov, 17 pp.
RUSSIAN, rpt, Leningrad Radio, 1200 GMT,
Leningrad, 18 Apr 1970.
JPRS 50623

Soviet Central Asia Needs Atheist Propaganda,
by R. Mishanov, 13 pp.
RUSSIAN, per, Nauka i Religiya, Moscow, No 4,
Apr 1970, pp 16-25.
JPRS 50710

Growth of Socialist Culture in Moldavia, by
I. Sodyul, 6 pp.
RUSSIAN, np, Pravda, Moscow, 16 Apr 1970,
p 2.
JPRS 50623

Role of Party in Improving Technology Discussed,
by K. Nikolayev, 6 pp.
RUSSIAN, np, Pravda, Moscow, 29 Apr 1970, p 2.
JPRS 50710

Anti-Soviet Plans Nurtured by West as Early
as 1945, by Yu. Zhukov, 5 pp.
RUSSIAN, np, Pravda, Moscow, 10 May 1970,
p 4.
JPRS 50655

Party Work in Latvian Ministries Reviewed,
by P. Rybal'chenko, 5 pp.
RUSSIAN, np, Sovetskaya Latvija, Riga,
5 Apr 1970, p 2.
JPRS 50623

Speech by Latvian Deputy V. Ya. Punga on
Latvian Land Law, by V. Ya. Punga, 8 pp.
RUSSIAN, np, Sovetskaya Latvija, Riga,
6 May 1970, p 3.
JPRS 50655

Marxist Attitudes Towards Zionism Discussed, by
G. Zimanas, 11 pp.
RUSSIAN, per, Sovetskaya Litva, Vil'nyus,
5 Apr 1970, pp 2-3.
JPRS 50558

Snechkus Delivers Lenin Centenary Speech,
19 pp.
RUSSIAN, per, Sovetskaya Litva, Vilnyus,
19 Apr 1970, pp 2-3.
JPRS 50578

Kishinev Party Plenum Criticizes Cadres,
by V. Chalyy, 5 pp.
RUSSIAN, np, Sovetskaya Moldaviya, Kishinev,
20 May 1970, p 2.
JPRS 50655

Soviets Criticize Revisionism of Right and
Left, 16 pp.
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,
Moscow, No 4, Apr 1970, pp 124-133.
JPRS 50655

Polyanskiy Describes Realization of Lenin
Behests, by D. Polyanskiy, 13 pp.
RUSSIAN, per, Sovety Deputatov Trud'yashchikhsya,
Moscow, No 4, Apr 1970, pp 5-14.
JPRS 50655

Uzbekistan First Secretary Rashidov Addresses
Lenin Anniversary Session, 25 pp.
RUSSIAN, rpt, Tashkent Radio, 0330-0715 GMT,
Tashkent, 17 Apr 1970.
JPRS 50623

Work of Moldavian Trade Union Council
Evaluated, by P. Mitin, 5 pp.
RUSSIAN, np, Trud, Moscow, 26 Apr 1970, p 2.
JPRS 50623

USSR
Political - Contd.

USSR
Political - Contd.

Lenin Recognized Trade Unions Importance,
by D. Karayev, 8 pp.
RUSSIAN, np, Turkmeneskaya Iskra, Ashkhabad,
15 Apr 1970, p 3.
JPRS 50623

Party Official Describes Austrian Visit, by
P. A. Rodionov, 7 pp.
RUSSIAN, np, Zarya Vostoka, Tbilisi, 26 May 1970,
p 3.
JPRS 50710

Achievements of Turkmenistan Reported, 10 pp.
RUSSIAN, np, Turkmeneskaya Iskra, Ashkhabad,
16 Apr 1970, pp 1, 3.
JPRS 50623

Revisionist Contradictions Ruining Soviet Union,
10 pp.
ALBANIAN, np, Zeri i Popullit, Tirana, 15 May
1970, p 4.
JPRS 50687

Turkmen Party Leader Traces Republic Progress,
by M. Gapurov, 28 pp.
RUSSIAN, np, Turkmeneskaya Iskra, Ashkhabad,
18 Apr 1970, pp 2, 3, 4.
JPRS 50655

Kazakhstan's March to Socialism Described, by
K. Beysembiyev, 8 pp.
KAZAKH, np, Sotzialistik Kazakhstan, Alma Ata,
12 Apr 1970, pp 2, 3.
JPRS/ 50710

The Greatness of Lenin and Leninism, 10 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, Apr 1970, pp 3-10.
JPRS 50637

Lenin's Peaceful Coexistence Policy Reaffirmed,
by B. Boltirikova, 7 pp.
KAZAKH, np, Sotzialistik Kazakhstan, Alma Ata,
15 Apr 1970, p 3.
JPRS 50710

Symposium at the Institute of U.S. Studies,
55 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, Apr 1970, pp 11-48.
JPRS 50637

Secret Document Reveals New Soviet Foreign Policy,
by Archimede, 5 pp.
ITALIAN, np, L'Europeo, Milan, 7 May 1970,
p 12.
JPRS 50623

Lenin's Theory of Imperialism and the Motive
Forces of Technological Progress, by
A. S. Nikolayev, 15 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, Apr 1970, pp 49-60.
JPRS 50637

Military

V. I. Lenin on Ways of Shaping the New Man,
by V. I. Stepanov, 19 pp.
RUSSIAN, per, Voprosy Filosofii, Moscow,
Mar 1970, pp 3-16.
JPRS 50558

Border Troop History Cited on Anniversary,
by V. Lezhepekov, 7 pp.
RUSSIAN, per, Apitator, Moscow, No 8, Apr 1970,
pp 33-35.
JPRS 50609

Lenin on Strengthening USSR Defense, by
Yu. Korablev, 12 pp.
RUSSIAN, per, Voyenno-istoricheskiy zhurnal,
Moscow, No 4, 1970, pp 14-23.
JPRS 50655

Past and Present Role of Air Power Outlined,
by P. Kutakhov, 6 pp.
RUSSIAN, per, Aviatsiya i Kosmonavtika, Moscow,
No 5, May 1970, pp 1-4.
JPRS 50689

Socialist Military Community Called Lenin's
Idea, by A. Ratnikov, 10 pp.
RUSSIAN, per, Voyenno-istoricheskiy zhurnal,
Moscow, No 4, 1970, pp 42-49.
JPRS 50655

Stalin Meeting, Activities Described by Budennyi,
by S. M. Budennyi, 14 pp.
RUSSIAN, per, Don, Rostov-on-Don, No 3, Mar 1970
pp 30-39.
JPRS 50635

USSR
Military - Contd.

Soviet View of World War II Events Given,
by G. Zhukov, 21 pp.
RUSSIAN, per, Golos Rodiny, Moscow,
Nos 22-26, Mar 1970, p 6.
JPRS 50570

Past and Present Soviet Air Force Capabilities,
by P. Kutakhov, 6 pp.
RUSSIAN, np, Izvestiya, Moscow, 5 May 1970,
p 4.
JPRS 50609

Importance of Victory Over Fascist Germany,
by A. Yepishev, 15 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 8, Apr 1970, pp 3-11.
JPRS 50609

Selection and Training of Anti-Aircraft Missile
Personnel, by N. Minkin, 9 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 8, Apr 1970, pp 40-44.
JPRS 50609

Book Reviews: Moral Factor in Modern War, by
N. Fedotov, 6 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil,
Moscow, No 8, 1970, pp 90-91.
JPRS 50609

Admiral Baykov Comments on Officer Laxity,
by I. Baykov, 5 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 19 Mar
1970, p 2.
JPRS 50609

Greater Realism Stressed for Tank Training,
by M. Vaynrub, 7 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 26 Mar
1970, p 2.
JPRS 50609

Young Submarine Officer Comments on Training,
by A. Karpikov, 5 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 27 Mar
1970, p 2.
JPRS 50609

Aspects of Officer Command Training Discussed,
5 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 28 Mar
1970, p 2.
JPRS 50609

USSR
Military - Contd.

Petty Officer Enjoys Life on Nuclear Submarine,
by E. Shashuto, 5 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 30 Apr
1970, p 2.
JPRS 50609

Purpose and Value of 'Okean' Maneuvers Discussed, by
M. Novikov, 5 pp.
RUSSIAN, np, Krasnaya Zvezda, Moscow, 9 May 1970,
p 3.
JPRS 50661

Brief History of Helicopter Regiment Told,
by V. Maloletnev, 6 pp.
RUSSIAN, per, Kryl'ya Rodiny, Moscow, No 4, 1970,
pp 6-7.
JPRS 50635

Missile Plane Flight Reported, by A. Yevseyev,
8 pp.
RUSSIAN, per, Nedelya, Moscow, 4-10 May 1970,
pp 10-11.
JPRS 50689

Statement by Soviet Defense Minister, Marshal of
USSR A. Grechko, on the 52nd Anniversary of the
Soviet Armed Forces, 9 pp.
RUSSIAN, np, Pravda, 23 Feb 1970, p 2.
AIR/FTD/HT-23-224-70

Airborne Landing Operation Described in On-the-spot
Report from "Dvina" Maneuver Region, by
S. Borzenko, G. Buravkin. 5 pp.
RUSSIAN, np, Pravda, 12 Mar 1970, p 6.
AIR/FTD/HT-23-223-70

Zhurkov Describes Capture of Berlin, by
G. Zhukov, 12 pp.
RUSSIAN, np, Pravda, Moscow, 29 Apr 1970, p 3.
JPRS 50689

Recent World War II Military Memoirs Reviewed,
by V. Morozov, 7 pp.
RUSSIAN, np, Pravda, Moscow, 5 May 1970, p 6.
JPRS 50689

Anti-Tank Defense of the Motorized-Rifle
Battalion, by G.-I. Garbuz.
RUSSIAN, bk, Protivotankovaya Oborona
Motostrelkovogo Batal'ona, 1969.
*ACSI J-5109
ID 2204003670

Technical Progress in Armed Forces Discussed,
by M. V. Zakharov, 5 pp.
RUSSIAN, per, Radio, Moscow, No 2, Feb 1970,
pp 1-2.
JPRS 50570

'Dvina' Military Maneuvers Reviewed, by
I. Tret'yak, 7 pp.
RUSSIAN, np, Sovetskaya Belorussiya, Minsk, 24
Apr 1970, p 1, 3.
JPRS 50661

New Book Furnishes Additional Information on
World War II, by M. Savinskiy, 6 pp.
RUSSIAN, np, Sovetskaya Belorussiya, Minsk,
5 May 1970, p 3.
JPRS 50689

Proper Preparation of Youth for Armed Forces
Urged, by E. Evin, 5 pp.
RUSSIAN, np, Sovetskaya Latvija, Riga,
2 Apr 1970, p 2.
JPRS 50570

Civil Aviation Minister on USSR-Czech Relations,
by S. Stepunina, 5 pp.
RUSSIAN, np, Sovetskaya Rossiya, Moscow,
6 May 1970, p 3.
JPRS 50609

Visit to Southern Group of Forces Described, by
M. Chernogorov, V. Chepiga, 9 pp.
RUSSIAN, per, Sovetskij Voin, Moscow, No 7, Apr
1970, pp 18-23.
JPRS 50661

Role of Schools in Military Training Stressed,
by A. I. Yefimov, 6 pp.
RUSSIAN, per, Uchitel'skaya Gazeta, Moscow, 2 May
1970, pp 3-4.
JPRS 50689

Marshal Reflects on Heroism in War and Peace,
6 pp.
RUSSIAN, np, Uchitel'skaya Gazeta, Moscow, 9 May
1970, p 3.
JPRS 50689

USSR Defensive Capability Affirmed, by
A. Iovlev, 5 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, No 3, Mar 1970, pp 12-14.
JPRS 50635

Surprise in Naval Landing Operations, by
D. Kodola, 13 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
No 3, Mar 1970, pp 15-24.
JPRS 50635

Book on Financial Provision for Armed Forces
Reviewed, by Ye. Iurs, 7 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, No 3, Mar 1970, pp 78-82.
JPRS 50635

Book on Lenin's Military Theories Reviewed,
by V. Sushkov, 9 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, No 4, Apr 1970, pp 95-99.
JPRS 50609

Revised Edition of Lenin's Military Works,
by P. Derevyanko, 8 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, No 4, Apr 1970, pp 100-103.
JPRS 50609

Marshal Zhukov, 14 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, May 1970, pp 52-60.
JPRS 50708

Marshal Vasilevskiy, 15 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, May 1970, pp 60-69.
JPRS 50708

Marshal Konev, 14 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, May 1970, pp 69-77.
JPRS 50708

Marshal of Aviation Novikov, 11 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, May 1970, pp 77-83.
JPRS 50708

Admiral Kuznetsov, 9 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, May 1970, pp 84-88.
JPRS 50708

Army General Maryakhin, 11 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, May 1970, pp 89-94.
JPRS 50708

Colonel General Kraynyukov, 12 pp.
RUSSIAN, per, Voyenno-Istoricheskiy Zhurnal,
Moscow, May 1970, pp 95-101.
JPRS 50708

Lenin's Legacy Reflected in Soviet Armed
Forces, by P. Kuleshov, 7 pp.
RUSSIAN, per, Voyennyye Znaniya, Moscow,
No 4, 1970, pp 6-8.
JPRS 50615

Progress in Civil Defense Activities Discussed,
by O. Tolstikov, 5 pp.
RUSSIAN, per, Voyennyye Znaniya, Moscow,
No 4, 1970, pp 8-9.
JPRS 50615

Local Civil Defense Activities Described,
by Ye. Chekanova, 6 pp.
RUSSIAN, per, Voyennyye Znaniya, Moscow,
No 4, 1970, pp 24-25.
JPRS 50615

Local Civil Defense Exercises Discussed, by
P. Yakubovskiy, 6 pp.
RUSSIAN, per, Voyennyye Znaniya, Moscow,
No 4, Apr 1970, pp 29-30.
JPRS 50615

Yakubovskiy on World War II Victory, by
I. I. Yakubovskiy, 11 pp.
RUSSIAN, per, Za Rulem, Moscow, No 5, May 1970,
pp 1-4.
JPRS 50689

Sociological

Expansion of Ukrainian Phone Service Detailed,
by V. Varsol, V. Korol', 5 pp.
RUSSIAN, per, Den'gi i Kredit, Moscow, No 3,
1970, pp 48-50.
JPRS 50629

Role of Municipal Soviets in Housing Discussed,
by M. Vershinin, 5 pp.
RUSSIAN, np, Izvestiya, Moscow, 1 Apr 1970,
p 3.
JPRS 50537

130,000 Latvian Families Must go to Settlements,
by Ya. Foriyetis, 9 pp.
RUSSIAN, per, Kommunist Sovetskoy Latvii, Riga,
No 5, May 1970, pp 33-39.
JPRS 50710

Comments Made on USSR 1970 Census, by
V. Perevedenstev, 5 pp.
RUSSIAN, per, Literaturnaya Gazeta, Moscow, No 18,
29 Apr 1970, pp 10-11.
JPRS 50710

Results of the 1970 Census in the Ukraine,
5 pp.
RUSSIAN, np, Rabochaya Gazeta, Kiev, 30 Apr
1970, p 2.
JPRS 50601

Radio-Television Network to Reach Entire
Nation, 7 pp.
RUSSIAN, per, Radio, Moscow, No 4, 1970,
pp 6-7.
JPRS 50537

Urgent Vocational Guidance Problems Discussed,
by B. Vaynshteyn, R. Kutidze, 5 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow,
Mar 1970, pp 106-109.
JPRS 50585

Vocational Guidance Conference Held in Lenin-
grad, by Yu. Averichev, 5 pp.
RUSSIAN, per, Sotsialisticheskiy Trud, Moscow,
Mar 1970, pp 146-148.
JPRS 50585

Soviet Union Prepares for January Census, 9 pp.
RUSSIAN, per, Vestnik Statistiki, Moscow, No 12,
Dec 1969, pp 29-36.
JPRS 50664

USSR
Sociological (Contd.)

City Planning Problems of the Far North Analyzed, by V. Kasatkin, 7 pp.
RUSSIAN, per, Zhishishchoye Stroitel'stvo, Moscow, No 3, 1970, pp 2-5.
JPRS 50583

Duties of Press in Sociological Studies, by Viktor Vlasov, 7 pp.
RUSSIAN, per, Zhurnal'st, Moscow, No 4, Apr 1970, pp 25-27.
JPRS 50655

EASTERN EUROPE
Economic

Enterprises Failing to Supply Small Consumer Articles, by Likurg Roshi, 6 pp.
ALBANIAN, np, Zeri i Popullit, Tirana, 31 Mar 1970, p 3.
JPRS 50640

Changes in Customs Law Published, 14 pp.
BULGARIAN, per, Durzhaven Vestnik, Sofia, No 25, 27 Mar 1970, pp 1-4.
JPRS 50696

Basic Power Production Tasks for 1970 Cited, by Konstantin Popov, 5 pp.
BULGARIAN, per, Energetika, Sofia, No 1, Jan 1970, pp 1-2.
JPRS 50582

Role of Collective Foreign Exchange in Socialist Economic Integration, by Ivan Dimov, 7 pp.
BULGARIAN, per, Finansi i Kredit, Sofia, No 3, Mar 1970, pp 11-17.
JPRS 50696

Economic Relations with Developing Countries Surveyed, by Mariana Peycheva Avramova, 7 pp.
BULGARIAN, per, Ikonomicheska misul, Sofia, No 1, Jan 1970, pp 109-113.
JPRS 50534

Eastern Europe
Economic (Contd.)

Solution of Urgent Economic Problems Discussed, by Zhivko Zhivkov, 19 pp.
BULGARIAN, per, Ikonomicheska Misul, Sofia, No 2, Feb 1970, pp 3-18.
JPRS 50582

Forestry and Wood Processing Industry Reviewed, by Mako Dakov, 7 pp.
BULGARIAN, np, Ikonomicheski Zhivot, Sofia, 8 Apr 1970, pp 1, 8.
JPRS 50682

Creation of Agroindustrial Complexes Urged, by Vulkan Shopov, 8 pp.
BULGARIAN, np, Kooperativno Selo, Sofia, 6 May 1970, pp 1, 2.
JPRS 50651

Better Planning of Trade and Farming Ties Urged, by Georgi Kostadinov, 7 pp.
BULGARIAN, per, Kooperativno Zemedelie, Sofia, No 2, Feb 1970, pp 1-4.
JPRS 50534

Improvements in Rural Services Outlined, by Lilyana Zarcheva, 6 pp.
BULGARIAN, per, Kooperativno Zemedelie, Sofia, No 2, Feb 1970, pp 4-6.
JPRS 50534

Increased Livestock Numbers, Productivity Urged, by Bulcho Mateev, 5 pp.
BULGARIAN, per, Narodni Suveti, Sofia, No 3, Mar 1970, pp 34-36.
JPRS 50667

Product Costs Urged as Major Economic Index, by Kosta Kostov, 10 pp.
BULGARIAN, per, Naruchnik na Agitatora, Sofia, No 6, Mar 1970, pp 13-21.
JPRS 50582

1969 Economic Data for CEMA Nations Given, 8 pp.
BULGARIAN, per, Naruchnik na Agitatora, Sofia, No 6, Mar 1970, pp 56-62.
JPRS 50582

Eastern Europe
Economic (Cont'd)

Problems of Wage Policy Analyzed, by
Asen Dobrev, 12 pp.
BULGARIAN, per, Problemi na Truda, Sofia,
no 1, 1970, pp 70-79.
JPRS 50611

Employment, Territorial Distribution Surveyed,
by Ana Kamenova, Yosif Peev, 11 pp.
BULGARIAN, per, Problemi na Truda, Sofia,
No 1, 1970, pp 80-87.
JPRS 50611

Trends, Prospects in Manpower Utilization Analyzed,
by Dimitur Kosev, Valichka Kuneva, 10 pp.
BULGARIAN, per, Problemi na Truda, Sofia, No 2,
1970, pp 45-53.
JPRS 50667

First Quarter Economic Progress Reviewed,
5 pp.
BULGARIAN, np, Rabotnichesko Delo, Sofia,
25 Apr 1970, p 2.
JPRS 50559

Basic Problems Facing the Team of the State
Economic Enterprise "Fishbreeding" in the District
of Plovdiv, by P. Belev, 5 pp.
BULGARIAN, per, Ribno Stopanstvo, Vol 16, No 2,
1969, pp 9-10.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 16
On Loan

Problems of Marketing Fish and Fish Products, by
Dragin Nedev, 11 pp.
BULGARIAN, per, Ribno Stopanstvo, Vol 16, No 5, 1969
pp 1-3.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 28
On Loan

Transportation Development Problems Discussed,
by Jaroslav Brneir, 16 pp.
CZECH, per, Doprava, Prague, No 1, 1970,
pp 4-10.
JPRS 50559

Eastern Europe
Economic (Cont'd)

Polish Economist Interviewed on CEMA, by
Krzysztof Krauss, 10 pp.
CZECH, per, Hospodarske Noviny, Prague,
No 3, 23 Jan 1970, pp 10, 11.
JPRS 50534

Economic Development in Slovakia Judged Promising,
by Ladislav Janci, 5 pp.
SLOVAK, np, Hospodarske Noviny, Prague, 6 May
1970, p 7.
JPRS 50696

Marine Fisheries on a Better Course, 11 pp.
GERMAN, per, Allgemeine Fischwirtschaftszeitung,
(AFZ), Vol 21, No 29/30, 1969, pp 11-14.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 135
On Loan

Using Economic Controls to Limit Air Pollution,
by Dietmar Gonschorek, Gerhard F. Mueller, 10 pp.
GERMAN, per, Chemische Technik, Leipzig, Mar 1970,
pp 158-161.
JPRS 50499

Travel Report on the Visit of an East German Inland
Fisheries Study Delegation to the USSR, by
H. W. Blume, G. Predel, 18 pp.
GERMAN, per, Deutsche Fischerei Zeitung, Vol 16,
No 9, 1969, pp 253-265.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 130
On Loan

Railroad to Help Leipzig Commuter Transporta-
tion, by Gerhard Schmidt, 10 pp.
GERMAN, per, Eisenbahnpraxis, East Berlin,
Apr 1970, pp 119-122.
JPRS 50640

The Economic Significance of Town Power and Heat
Supply Systems, by K. Hencky.
GERMAN, per, Energie, Vol 11, July, 1959, pp 1-3.
C.E. Trans 5196

Marketing Research of the Fishing Industry, by
H. Goben, 19 pp.
GERMAN, per, Fischereiwelt, No 4, Oct 1969,
pp 38-44.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 27
On Loan

Eastern Europe
Economic (Contd.)

Changes in State Contract Court Tasks,
Procedures, 12 pp.
GERMAN, per, Gesetzblatt der Deutschen
Demokratischen Republik, East Berlin, Part II,
No 29, 3 Apr 1970, pp 205-209.
JPRS 50582

Study Shows Influence of Education on
Consumption, by Olaf Schmutzler, 7 pp.
GERMAN, np, Die Wirtschaft, East Berlin,
12 Feb 1970, p 15.
JPRS 50559

Study Shows Metallurgical Standards Need
Revising, by E. Bruse, W. Moc, 7 pp.
GERMAN, per, Die Wirtschaft, East Berlin,
2 Apr 1970, pp 5-6.
JPRS 50582

Establishment of Corporations Discussed, by
Maria Hubert, 5 pp.
HUNGARIAN, np, Figyelő, 6 May 1970, p 5.
JPRS 50651

Aluminum Industry's Developmental Problems
Outlined, by Gyorgy Dobos, 13 pp.
HUNGARIAN, per, Kohaszat, Budapest, No 2,
Feb 1970, pp 84-89.
JPRS 50582

Financial Policy, Forint Stability Discussed,
by Istvan Nemenyi, 11 pp.
HUNGARIAN, np, Magyar Hirlap, Budapest,
9 Apr 1970, p 9; 10 Apr 1970, p 7; 11 Apr 1970,
p 8.
JPRS 50559

Reducing Manpower Turnover Discussed, by
Jozsef Fahidy, 6 pp.
HUNGARIAN, np, Magyar Hirlap, Budapest, 25, 26
Apr 1970.
JPRS 50651

Fish Production and Selling, by L. Pillar, 10 pp.
HUNGARIAN, per, Magyar Mezogardasag, Vol 21, No 52,
1966, pp 15-16.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 59
On Loan

Eastern Europe
Economic (Contd.)

Metallurgical, Foundry Tasks Emphasized, by
Ferenc Romvaru, 8 pp.
HUNGARIAN, per, Ontode, Budapest, No 2,
Feb 1970, pp 25-28.
JPRS 50582

Characteristics, Tasks of Price Policy Discussed,
by Bela Csikos-Nagy, 18 pp.
HUNGARIAN, per, Penzuryi Szemle, Budapest, Feb
1970, pp 89-102.
JPRS 50682

Kultura Reviews Economic Reform in Hungary,
by Jerzy Kleer, 9 pp.
POLISH, np, Kultura, Warsaw, 17 May 1970, p 5.
JPRS 50696

Limit of Use of Market Mechanisms Delineated,
by Wladyslaw Zastawny, 13 pp.
POLISH, per, Nowe Drogi, Warsaw, No 4, Apr 1970,
pp 20-36.
JPRS 50682

Fishery and Supply of Crayfish for Export, by
J. Paladina.
POLISH, bk, Polowy i Dostawy Raka Exportowego,
1963, 120 pp.
*CESTI TT 70-55115

Transportation Ministry Announces Investment
Plan, by Stanislaw Stankowski, 15 pp.
POLISH, per, Przegląd Komunikacyjny, Warsaw,
No 3, Mar 1970, pp 81-86.
JPRS 50534

More Efficient Use of Specialists Urged, by
Andrzej Nalecz-Jawicki, 9 pp.
POLISH, np, Przegląd Związkowy, Warsaw, Mar 1970,
pp 5-7.
JPRS 50651

Shrimp Fisheries on Georges Bank, by F. Bucki,
W. Strzyzewski, 15 pp.
POLISH, per, Technika i Gospodarka Morska, Vol 19,
No 5(215), 1969, pp 210-214.
Dept of Interior
BCF/GFF
A-36-Feb 1970-No 115
On Loan

Eastern Europe
Economic (Contd)

Management and Planning Methods in the Marine Fish Industry, by S. Lewenstein, 14 pp.
POLISH, per, Technika i Gospodarka Morska, Vol 19, No 6(216), 1969, pp 264-267.

Dept of Interior
BCF/OFF
A-36-Feb 1970-No 97
On Loan

Conversion of the "Kwisa" Trawler to Trawler-Seiner and the Change for Introducing Seine Fisheries in Poland, by J. Strybel, 19 pp.
POLISH, per, Technika i Gospodarka Morska, Vol 19, No 7(217), 1969, pp 298-301.

Dept of Interior
BCF/OFF
A-36-Feb 1970-No 133
On Loan

The Problem of Controlling the Fishing Fleet Operation, by St. Szymanski.
POLISH, per, Technika i Gospodarka Morska, Vol 19, No 11, 1969, pp 488-491.

*Dept of Interior
BCF/OFF
A-37-March 1970-No 152

Operating and Economic Effects Attained by Various Types of Fishing Vessels, by T. Lubowiecki, 1pp.
POLISH, per, Technika i Gospodarka Morska, vol 20, no 2, April 1970, pp. 68.
*CFSTI TT 70-55130
AVAILABLE FROM BCF ONLY

Importance of Offshore Fisheries, by B. Pradzynski, 3pp.
POLISH, per, Technika i Gospodarka Morska vol 20, no 3, May 1970, pp. 103-105.
*USDI/BCF TT 70-55131

Economic Law as an Instrument to Direct Fisheries Economy in East Germany, by W. Haring, S. Joachim 3pp.
POLISH, per, Technika i Gospodarka Morska, vol 20 no 3, May 1970, pp. 103-110.
*USDI/BCF TT 70-55132

Mitrega Outlines Plan for Coal Industry Growth, by Jan Mitrega, 9 pp.
POLISH, per, Wladomosci Gornicze, Warsaw, Feb 1970, pp 33-36.
JPRS 50682

Eastern Europe
Economic (Contd)

Public Discussion of New Economic Policy Needed, by Jerzy J. Wiatr, 7 pp.
POLISH, per, Wspolczesnosc, Warsaw, 15-28 Apr 1970, p 3.
JPRS 50559

Industry Faces Growth Structure Problems, by Marek Misiak, 8 pp.
POLISH, np, Zycie Gospodarcze, Warsaw, 12 Apr 1970, pp 1, 10.
JPRS 50611

Heat Industry Outlays to be Greatly Increased, by Janusz Wasylkowski, 10 pp.
POLISH, np, Zycie Gospodarcze, Warsaw, 12 Apr 1970, p 3.
JPRS 50640

Selective Development of Industry Discussed, by Marek Misiak, 6 pp.
POLISH, np, Zycie Gospodarcze, Warsaw, 19 Apr 1970, p 9.
JPRS 50667

Future Plans for Social Security Outlined, by Stefan Popovici, 17 pp.
ROMANIAN, per, Finante si Credit, Bucharest, Mar 1970, pp 27-40.
JPRS 50651

Profitability of Export of Petroleum Products Analyzed, by A. Bradescu, 9 pp.
ROMANIAN, per, Petrol si Gaze, Bucharest, No 4, Apr 1970, pp 237-240.
JPRS 50696

Reserves of Greater Industrial Labor Productivity, by Vasile Popescu, 14 pp.
ROMANIAN, per, Probleme Economice, Bucharest, Feb 1970, pp 74-86.
JPRS 50640

Inefficient Use of Freight Cars Deplored, by Stefan Pavel, 5 pp.
ROMANIAN, np, Romania Libra, Bucharest, 4 Apr 1970, pp 1, 2.
JPRS 50651

Dependence of Economic Progress on Product Quality Stressed, by M. Florescu, 5 pp.
ROMANIAN, np, Scinteia, Bucharest, 22 Apr 1970, pp 1, 3.
JPRS 50682

Research Trends in Economic Computation,
Cybernetics Traced, by C. Ionescu, 7 pp.
RUMANIAN, per, Studii si Cercetari de Calcul
Economic si Cibernetica Economica, Bucharest,
No 6, Nov/Dec 1969, pp 5-10.
JPRS 50534

First Development Stage of National Data
Processing System Outlined, by N. Costake,
14 pp.
RUMANIAN, per, Studii si Cercetari de Calcul
Economic si Cibernetica Economica, Bucharest,
No 6, Nov/Dec 1969, pp 29-38.
JPRS 50534

Efficiency of Foreign Trade Discussed, 20 pp.
RUMANIAN, per, Viata Economica, Bucharest,
No 12, 20 Mar 1970, pp 10-11.
JPRS 50582

Hungarian Cooperation in Machine Building
Told, by Valentina Braneanu, 5 pp.
RUMANIAN, per, Viata Economica, Bucharest,
17 Apr 1970, pp 17, 18.
JPRS 50611

1969 Budget Expenditures Outlined, by
Vladislav Horvat, 8 pp.
SERBO-CROATIAN, per, Finansije, Belgrade,
No 3-4, Mar-Apr 1970, pp 129-135.
JPRS 50611

Yugoslav-Albanian Trade Protocol for 1969,
5 pp.
SERBO-CROATIAN, per, Medjunarodni ugovori i
drugi sporazumi, Belgrade, 16 Apr 1970,
pp 79-80.
JPRS 50534

Yugoslav-USSR Trade Protocol for 1969, 6 pp.
SERBO-CROATIAN, per, Medjunarodni ugovori i
drugi sporazumi, Belgrade, 16 Apr 1970,
pp 86-88.
JPRS 50534

Wholesale, Retail Trade in 1966-1969 Reviewed,
5 pp.
SERBO-CROATIAN, per, Nova Trgovina, Belgrade,
Feb 1970, pp 66-68.
JPRS 50696

Operation of Assessment on Total Net Personal
Income Described, by Marko Djurbabio, 9 pp.
SERBO-CROATIAN, per, Opstina, Belgrade, No 1,
1970, pp 32-41.
JPRS 50611

Earnings, Purchasing Power Increase in 1969,
by Miladin Raicevic, 6 pp.
SERBO-CROATIAN, per, Privredni Pregled,
Belgrade, 6 Apr 1970, p 12.
JPRS 50582

Post-Reform Foreign Trade Analyzed, by
Dusan Anakioski, 21 pp.
SERBO-CROATIAN, per, Problemi Spolne Trgovine i
Konjunktura, Belgrade, No 4, Oct-Nov-Dec 1969,
pp 405-424.
JPRS 50696

Federal Investment in Economy for 1970 Listed,
5 pp.
SERBO-CROATIAN, per, Sluzbeni List SFRJ, Belgrade,
21 May 1970, pp 645-647.
JPRS 50696

History of Yugoslav Ports, Storage Areas
Reviewed, by Frane Zic, 9 pp.
SERBO-CROATIAN, per, Tehnika, Belgrade,
Apr 1970, pp 665-669.
JPRS 50611

Bulgaria's Chemical Industry's Development
Described, by Aleksej Kuzmanov, 7 pp.
SERBO-CROATIAN, per, Tehnika, Belgrade,
Apr 1970, pp 783-794a.
JPRS 50611

River Shipping Plans Given for 1970, by D. Petrovic,
5 pp.
CROATIAN, per, Transport, Belgrade, Feb 1970,
pp 60-61.
JPRS 50682

Investment Bank Operations in 1968-1969
Reviewed, 29 pp.
SERBO-CROATIAN, per, Vesnik Jugoslovenske
Investicione Banke, Belgrade, No 153, Feb 1970,
pp 4-13.
JPRS 50640

Eastern Europe
Economic (Cont'd)

Rail System Urged to Set up Own Container Subdivision, by Egon Kos. 10 pp.
SERBO-CROATIAN, per, Železnice, Belgrade, Feb 1970, pp 41-45.
JPRS 50667

Political

Leadership of Party Organs Needs Improvement, by Hysni Kapo, 27 pp.
ALBANIAN, per, Rruga e Partise, Tirana, Feb 1970, pp 53-77.
JPRS 50627

Fast Efforts of Party to Purify Ranks Described, by Resul Galanxhi, 10 pp.
ALBANIAN, per, Rruga e Partise, Tirana, Apr 1970, pp 73-80.
JPRS 50687

State Control Committee Activities Discussed, by Stefka Popova, 5 pp.
BULGARIAN, per, Ekonomicheski Zhivot, Sofia, 23 Mar 1970, pp 1, 3.
JPRS 50534

Anniversary of Jan Palach's Immolation Commemorated, by Jiri Pekikan, Jan Schneider, 40 pp.
CZECH, per, Listy, Rome, Feb 1970.
JPRS 50580

Marxist-Leninist Partisanship, Ideological Class Struggle, by Guenter Hayden, 17 pp.
GERMAN, per, Deutsche Zeitschrift fuer Philosophie, East Berlin, 1970, pp 122-135.
JPRS 50697

Man's Position in Socialist Economic System Outlined, by Guenter Soeder, 14 pp.
GERMAN, per, Einheit, East Berlin, Apr 1970, pp 438-448.
JPRS 50552

Report on Structural Changes, Prospects of Working Class, by Walter Lamberz, 7 pp.
GERMAN, per, Forum, East Berlin, No 7, Apr 1970, pp 8-9.
JPRS 50674

Eastern Europe
Political (Cont'd)

Leninist Peace Strategy, Struggle for European Security, by Herbert Kroeger, 18 pp.
GERMAN, per, Horizont, East Berlin, No 13, Mar 1970, No 14, Apr 1970.
JPRS 50687

Deputy Minister Kessler on Role of Warsaw Pact, by Heinz Kessler, 6 pp.
GERMAN, per, Horizont, East Berlin, No 19, Apr 1970, pp 3-4.
JPRS 50631

State Council Issues Resolution on Communal Policy, 6 pp.
GERMAN, np, Neues Deutschland, East Berlin, 19 Apr 1970, p 4.
JPRS 50604

Ulbricht Addresses Seventh Pedagogical Congress, by Walter Ulbricht, 27 pp.
GERMAN, per, Neues Deutschland, East Berlin, 8 May 1970, pp 3-5.
JPRS 50627

Stoph on Application of Lenin's State Theory in GDR, by Willi Stoph, 7 pp.
GERMAN, np, Sozialistische Demokratie, East Berlin, 17 Apr 1970, pp 3-4.
JPRS 50552

State Council Adopts Chemical Industry Resolution, 13 pp.
GERMAN, per, Die Wirtschaft, East Berlin, 23 Apr 1970, pp 9-10.
JPRS 50640

Piller Views Socialist Role of Trade Unions, by Ferenc Zele, 5 pp.
HUNGARIAN, np, Nepszava, Budapest, 5 May 1970, p 3.
JPRS 50649

Ferenc Tokei Discusses Leninism, by Edit Erki, 8 pp.
HUNGARIAN, per, Uj Iras Budapest, Budapest, No 4, Apr 1970, pp 12-18.
JPRS 50604

Departments to be Established by People's Councils, 9 pp.
POLISH, np, Dziennik Ustaw, Warsaw, 7 Apr 1970, pp 73-75.
JPRS 50631

Eastern Europe
Political - Contd.

Duties of People's Councils Presidium Members
Delineated. 8 pp.
POLISH, per, Dziennik Ustaw, Warsaw, 11 May 1970
pp 125-129.
JPRS 50697

Belief in Personal Initiative Must be Restored,
by Jozef Wojtyna, 6 pp.
POLISH, np, Kultura, Warsaw, 12 Apr 1970, p 8.
JPRS 50631

Ulszowski Defends Judging Art According to Propaganda Value, by Stefan Ulszowski, 6 pp.
POLISH, np, kultura, Warsaw, 19 Apr 1970, pp 1, 5.
JPRS 50552

Lenin's Concept of Nationality Problem Analyzed,
by Wladyslaw Gomulka. 14 pp.
POLISH, per, Nowe Drogi, Warsaw, No 4, Apr 1970
pp 1-16.
JPRS 50631

Comments on Rural Youth Union Congress Given,
by Michal Strak, 8 pp.
POLISH, per, Wies Wspolczesna, Warsaw,
Apr 1970, pp 90-96.
JPRS 50604

Conflict Between Lenin and Rosa Luxemburg Viewed,
by N. Tertulian. 11 pp.
ROMANIAN, np, Lucafaarul, Bucharest, 4 Apr 1970,
pp 8,6.
JPRS 50674

Growth of Party's Leading Role in Society
Upheld, by Ilie Sarzea, 17 pp.
ROMANIAN, per, Lupta de Clasa, Bucharest,
Feb 1970, pp 56-67.
JPRS 50604

Importance of Creative Spirit of Leninist Teaching on Party Stressed, by P. Radovan, 13 pp.
ROMANIAN, per, Lupta de Clasa, Bucharest, No 4,
Apr 1970, pp 14-23.
JPRS 50631

National Sovereignty, Internationalism Discussed,
by C. Vlad, 2pp.
ROMANIAN, per, Lupta de Clasa, Bucharest, No 4,
Apr 1970, pp 52-60.
JPRS 50631

Eastern Europe
Military

Education Should Prepare for Defense Readiness,
by Siegfried Zimmer, 10 pp.
GERMAN, per, Paedagogik, East Berlin, Mar 1970,
pp 207-218.
JPRS 50552

Determining Demand for Missile Technology,
Armament, by n. Kybranz, W. Richter, 9 pp.
GERMAN, per, Militaertechnik, East Berlin, Jan
1970, pp 29-31.
JPRS 50697

Possibilities for the Deployment of Army Aviators,
by Dietrich Meiss.
GERMAN, per, Truppenpraxis, No 9, 1967, pp 656-666.
*ACSI J-8359
ID 220400970

General Koczynski Discusses Home-Front Defense
Problems, 6 pp.
POLISH, per, Zolnierz Wolnosci, Warsaw, 24 Apr
1970, pp 1, 2.
JPRS 50627

Soviet-East German Military Cooperation Explained
and Defended, by W. Verner, 11 pp.
RUSSIAN, per, Kommunist Vooruzhennykh Sil, Moscow,
No 8, Apr 1970, pp 75-79.
JPRS 50631

Information Offered on Military Schools, 24 pp.
SERBO-CROATIAN, np, Front, Belgrade, 24 Apr 1970,
pp 7-9.
JPRS 50627

Small Arms, Ammunition Proofing Regulation Issued,
36 pp.
SERBO-CROATIAN, per, Sluzbeni List SFRJ, Belgrade,
No 15, 9 Apr 1970, pp 530-544.
JPRS 50627

Actions in Enemy Rear Important to Offensives,
by Jovo Minkovic, 11 pp.
SERBO-CROATIAN, per, Vojno Delo, Belgrade, No 2,
Mar-Apr 1970, pp 23-31.
JPRS 50674

Navy's Role, Significance of Adriatic Theater
Presented, by Dusan Miljanic, 17 pp.
SERBO-CROATIAN, per, Vojno Delo, Belgrade, No 2,
Mar-Apr 1970, pp 86-99.
JPRS 50674

Eastern Europe
Military (Contd)

Army Fiscal Plan for Current Year Reviewed, by Rudolf Musi, 9 pp.
SERBO-CROATIAN, per, Vojnoekonomski pregled, Belgrade, Jan 1970, pp 10-17.
JPRS 50552

Sociological

Intensive Campaign Against Religion Urged, by Hulusi Hako, 14 pp.
ALBANIAN, per, Pruga e Partise, Tirana, Feb 1970, pp 95-106.
JPRS 50627

Conservatism in Schools Must be Combated, by Hamit Beqja, 5 pp.
ALBANIAN, np, Zeri i Popullit, Tirana, 4 Apr 1970, p 3.
JPRS 50674

Problems of Urban Development and Industry, by Angel Bruchkov, 12 pp.
BULGARIAN, per, Planovo Stopanstvo, Sofia, No 3, Mar 1970, pp 34-43.
JPRS 50651

Catholic Cooperation, not Sideline Criticism Demanded, by Hubertus Guske, 5 pp.
GERMAN, per, Begegnung, East Berlin, Mar 1970, pp 3-5.
JPRS 50552

Inequalities in New Scholarship Law Aired, by Wladyslaw Daniszewski, 5 pp.
POLISH, np, Tygodnik Morski, Gdynia, 5 Apr 1970, pp 1, 10.
JPRS 50552

Vital Statistics for 1969 Compared with Last Years, 7 pp.
POLISH, per, Mladomosci Statystyczne, Warsaw, Apr 1970, pp 42-44.
JPRS 50552

Special Secondary Schools Train for Jobs, by Vasile Morae, 17 pp.
ROMANIAN, per, Lupta de Clasa, Bucharest, Feb 1970, pp 22-33.
JPRS 50552

Eastern Europe
Sociological (Contd)

Measures Against Automobile Speculation Ineffective, by Ion Vlaicu, 5 pp.
ROMANIAN, np, Scinteia, Bucharest, 26 Apr 1970, pp 1, 5.
JPRS 50674

Decree Sets Punishments for Disturbing Peace, 9 pp.
ROMANIAN, np, Scinteia Tineretului, Bucharest, 13 Apr 1970, p 2.
JPRS 50649

Schools Blamed for Student's Ignorance of the Law, by Galina Badulescu, 5 pp.
ROMANIAN, np, Scinteia Tineretului, Bucharest, 21 Apr 1970, pp 1, 2.
JPRS 50649

WESTERN EUROPE

Economic

Production Control at a BOF (LD-AC) Steel Plant, by P. Koenig, et al.
GERMAN, per, Arch Eisenh, Vol 41, Feb 1970, pp 130-139-142.
*HB 8170

Annual Report of the Research Laboratory of the Ministry of Fisheries for 1968, 27 pp.
DANISH, rpt, Arsberetning fra Fiskeriministeriets Forsgslaboratorium for 1968, 1969, pp 5-24.
Dept of Interior
BCF/OFF
A-37-March 1970-No 18
On Loan

Good Fishing in the Azores, by C.A. Moser
GERMAN, per, Osterreichs Fischerei, vol 23, No 2-3, 1970, pp. 21-26.
*CFSTI TT 70-58182

Western Europe
Political

Communist Party's Governmental Role Defined,
by Aarne Saarinen, 5 pp.
FINNISH, np, Kansan Uutiset, Helsinki, 3 May 1970,
p 3.
JPRS 50703

'Democracy' of French CP Branded as Farce, by
Claude Harmel, 23 pp.
FRENCH, per, Est and Ouest, Paris, 1-15 May 1970,
pp 20-28.
JPRS 50703

Trotskyite Sees Soviet Leadership Facing
Crisis, 5 pp.
FRENCH, per, La Gauche, Brussels, 25 Apr 1970,
pp 14-15.
JPRS 50571

Communist Student Union Holds National Congress,
by Jean-Michel Catala, 6 pp.
FRENCH, np, L'Humanite, Paris, 22 Apr 1970,
p 6; 24 Apr 1970, p 7.
JPRS 50571

Marchais Speaks on Women's Role in Society,
5 pp.
FRENCH, np, L'Humanite, Paris, 25 May 1970,
p 7.
JPRS 50644

CP Moves to Oust Roger Garaudy, by
Raymond Barrillon, 6 pp.
FRENCH, np, Le Monde, Paris, 6 May 1970,
p 1.
JPRS 50617

Austrian CP Prepares for 21st Congress, by
Franz Muhri, 28 pp.
GERMAN, np, Volksstimme, Vienna, 15 Apr 1970,
p 2.
JPRS 50539

CP Organizes Communist Youth of Austria, by
Erwin Schaft, 18 pp.
GERMAN, np, Volksstimme, Vienna, 9 May 1970,
p 2.
JPRS 50644

Communist Party Looks Toward 21st Congress,
by Hans Kalt, 6 pp.
GERMAN, per, Weg und Ziel, Vienna, May 1970,
pp 1-3.
JPRS 50703

Western Europe
Political (Contd)

Trotskyites See Pre-Revolutionary Situation,
21 pp.
ITALIAN, per, Bandiera Rossa, Rome, 15 Mar-
15 Apr 1970, pp 2-4.
JPRS 50571

Power Struggle in Italian CP Stepped Up, by
Enzo Bettiza, 5 pp.
ITALIAN, np, Corriere della Sera, Milan,
5 Apr 1970, p 3.
JPRS 50539

Peaceful Road to Socialism in Sweden Discussed,
by Sigurd Lotberg, 6 pp.
SWEDISH, np, Norrskensflamman, Lulea, 10 Apr
1970, pp 4, 5; 11 Apr 1970, p 4; 20 Apr 1970,
p 4.
JPRS 50571

Military

The Classical Conflict of Tanks Versus Missiles,
by R. Y. L. Gallais, 9 pp.
DUTCH, per, De Militaire Spectator, No 6, 1969,
pp 276-279.
ARM/FSTC/HT-23-574-70

New French Civil Defense Director, M. Jean Perreau-
Pradier, and the 1970 Civil Defense Budget, 9 pp.
FRENCH, per, Protection Civile et Securite Indus.,
No 182, Dec 1969, pp 7-10.
ACSI J-8170
ID 2204005670

AFRICA
Economic

Tighter Government Controls Imposed on Trade
Enterprises, (Tunisia), 5 pp.
ARABIC, np, al-Amal, Tunis, 8 May 1970, pp 1, 7.
JPRS 50711

Libya Reorganizes Oil Transport to End Graft,
(Libya), by Ibrahim Al-Tawir, 12 pp.
ARABIC, np, Al-Haqiqah, Benghazi, 13 Mar 1970,
p c.
JPRS 50610

National Assembly Adopts Three Draft Laws,
(Tunisia), 8 pp.
FRENCH, np, L'Action, Tunis, 29 Apr 1970, pp 1, 4.
JPRS 50633

Economic Survey One Year After Coup Given,
(Mali), 9 pp.
FRENCH, per, Africa, Dakar, No 49, 1970,
pp 43, 45, 47, and 49.
JPRS 50563

Ivorian Outlays, Revenue Witness Sharp Increase,
14 pp, (Ivory Coast).
FRENCH, per, Bulletin de l'Afrique Noire, Paris,
1 Apr 1970, pp 11959-11967.
JPRS 50590

Public-Investment Program Projections Reviewed,
(Niger), 5 pp.
FRENCH, per, Bulletin de l'Afrique Noire,
Paris, 8 Apr 1970, pp 11994-11996.
JPRS 50563

Text of GFS General Resolution Made Public,
(Senegal), 5 pp.
FRENCH, np, Dakar-Matin, 6 May 1970, p 4.
JPRS 50679

Budget, Oil Revenues Increasing Steadily, (Libya),
9 pp.
FRENCH, per, L'Economie et les Finances des Pays
Arabes, Beirut, Damascus, Jan 1970, pp 12-18.
JPRS 50656

Role of People's Thrift Stores Discussed,
(Congo Kinshasa), 7 pp.
FRENCH, per, Eurafrica, Brussels, Jan-Feb 1970,
pp 3-6.
JPRS 50541

New Rail, Port, Road, Air Facilities Reviewed,
(Inter-African), 9 pp.
FRENCH, per, Europe France Outre-Mer, Paris,
Jan-Feb 1970, pp 51-55.
JPRS 50541

National Economic Conference Reviews Problems,
(Chad), 13 pp.
FRENCH, per, Info Tchad, Fort-Lamy, 13 Apr 1970,
pp 1-4; 15 Apr 1970, pp 1-10.
JPRS 50541

Development of Maghreb Sugar Industry Reviewed,
(Inter-African), 15 pp.
FRENCH, per, Maghreb, Paris, Jan-Feb 1970,
pp 29-35.
JPRS 50563

Review of Moroccan Economy in 1969, (Morocco),
37 pp.
FRENCH, per, La Vie Economique, Casablanca, 1970,
pp 1-47.
JPRS 50679

Research Office Chairman Explains Program,
(Congo Kinshasa), 6 pp.
FRENCH, per, Zaire, Kinshasa, 30 Mar 1970,
pp 18-19.
JPRS 50541

Political

Moroccan Leader Underlines Islamic Orientation
of Tunisia, (Morocco), by Allal El-Fassi, 5 pp.
ARABIC, np, al-Alam, Rabat, 24, 25 Apr 1970,
pp 1; 1, 3.
JPRS 50618

King Hasan II Gives National Day Address,
(Morocco), 11 pp.
ARABIC, per, Al-Anba, Morocco, 4 Mar 1970,
pp 1-2.
JPRS 50541

PSD Assails 'Diversion,' Vows to Steer Tunisia
Back to Normal, (Tunisia), 5 pp.
ARABIC, np, As-Sabah, Tunis, 26 Apr 1970,
pp 1, 5.
JPRS 50618

Foreign Minister Voices Country's Views,
(Tunisia), 10 pp.
FRENCH, np, L'Action, Tunis, 23 Apr 1970, p 3.
JPRS 50633

Liberation Leader Explains Armed Struggle,
(Algeria), by Mishake Muyongo, 6 pp.
FRENCH, per, Algerie-Actualite, Algiers, 10-16
May 1970, pp 9-10.
JPRS 50711

French Correspondent Reports on Situation,
(Portuguese Guinea), by Jean-Francois Chauvel,
7 pp.
FRENCH, np, Le Figaro, Paris, 28 Apr 1970,
p 5.
JPRS 50581

Tombalbaye Discusses Internal, Foreign Policy,
(Chad), by President Tombalbaye, 24 pp.
FRENCH, per, Info Tchad, Fort Lamy, 9 Apr 1970,
pp 1-24.
JPRS 50618

Unrest in Chad, French Aid, Likely to Continue,
(Chad), by Gilbert Comte, 16 pp.
FRENCH, np, Le Monde, Paris, 5, 6, and 7 May
1970.
JPRS 50618

Swiss, German Views of Arabs Examined, (Algeria),
by R. Sadmi, 12 pp.
FRENCH, np, El Moudjahid, Algiers, 8 Apr 1970,
p 9; 9 Apr 1970, p 9; 10 Apr 1970, p 9;
11 Apr 1970, p 9; and 12/13 Apr 1970, p 9.
JPRS 50541

Organization of the Ministry of Agriculture,
(Tunisia), 8 pp.
FRENCH, np, La Presse de Tunisie, Tunis,
16 Apr 1970, p 4.
JPRS 50618

President's Sickness, Elections Cause Problems,
(Malagasy Republic), 6 pp.
FRENCH, per, Revue Francaise d'etudes Politiques
Africaines, Paris, Apr 1970, pp 9-13.
JPRS 50541

French Volunteers for Progress Viewed
Favorably, (Inter-African), by
Jacques Laboureau, 11 pp.
FRENCH, per, Revue Juridique et Politique,
Paris, Jan-Mar 1970, pp 127-136.
JPRS 50541

Ministry of Social Affairs Establishes Social
Foyers, (Burundi), 5 pp.
FRENCH, per, Unité et Revolution, Bujumbura,
3 Mar 1970, pp 7-8.
JPRS 50590

General Seeks Better Relations with Portuguese,
(Senegal), 6 pp.
FRENCH per, Zaire, Kinshasa, 13 Apr 1970, pp 26-
28.
JPRS 50490

Visitor Judges Economy, Political Maneuvers,
(Tunisia), by Karl Grobe, 6 pp.
GERMAN, np, Vorwärts, Bonn, 9 Apr 1970, p 3.
JPRS 50581

African Leader Dos Santos Reviews Struggles,
(Mozambique), 8 pp.
ITALIAN, np, Mondo Nuovo, Rome, 19 Apr 1970,
p 10.
JPRS 50563

Leninism Applicable to Africa's Present problems,
by V. Solodovnikov, 18 pp.
RUSSIAN, per, Mirovaya Ekonomika i Mezhdunarodnyye
Otnosheniya, Moscow, No 4, 1970, pp 67-78.
JPRS 50710

Military

Noncommissioned Officers' School Deemed Superior,
11 pp, (Algeria).
FRENCH, per, El Djelch, Algiers, Apr 1970, pp 3-8.
JPRS 50656

Geographic

Fishing Problems and Potential Discussed,
(French Territory of Afars and Issas), by
Alain Clouet, 9 pp.
FRENCH, per, La Revue Maritime, Paris, Apr
1970, pp 476-493.
JPRS 50711

Africa
Sociological

Plan to Streamline Education Detailed, (Tunisia),
20 pp.

ARABIC, np, al-Amal, Tunis, 8 May 1970, pp 4-5.
JPRS 50711

Algeria Faced with Shortage of Trained Teachers,
Good Curricula, (Algeria), by Turki Rabi, 7 pp.

ARABIC, per, Al-Mujahid, Algiers, 22 Mar 1970,
pp 30-32.
JPRS 50563

Requirements for BA in Letters Given, (Morocco),
9 pp.

FRENCH, per, Bulletin Officiel, Rabat, 15 Apr
1970, pp 567-573.
JPRS 50590

Report on Present Status and Perspectives of
Education, (Morocco), 7 pp.

FRENCH, np, La Depeche, Casablanca, 25 Apr
1970, p 3; 26 Apr 1970, p 3; 27 Apr 1970, p 4.
JPRS 50618

Maghreb Education: Problems, Statistics
Reviewed, (Inter-African), 21 pp.

FRENCH, per, Maghreb, Paris, Jan-Feb 1970,
pp 36-45.
JPRS 50563

Reporter Views Development of Nation's South,
(Algeria), by Rabah Afredj, 14 pp.

FRENCH, np, El Moudjahid, Algiers, 19/20,
21, 22, and 23 Apr 1970.
JPRS 50618

Education and the Generation Gap, (Guinea),
by Claude Riviere, 18 pp.

FRENCH, per, Revue Francaise d'Etudes Politiques,
Africaines, Paris, Apr 1970, pp 35-56.
JPRS 50581

National Pedagogical Institute Described,
(Congo Kinshasa), by Bernardin Maniesse, 6 pp.

FRENCH, per, La Tribune Africaine, Kinshasa,
26 Mar 1970, pp 3-4.
JPRS 50541

MIDDLE EAST
Economic

Asn-sharigan Entirely Converted into Oil Pro-
spection Zone, 6 pp.

ARABIC, np, Al-Ahram, Cairo, 4 Apr 1970, p 4.
JPRS 50545

Trials and Demise of Paper Currency Discussed,
by 'Abd al-Wahhab Matawi, 5 pp.

ARABIC, np, Al-Ahram, Cairo, 11 Apr 1970, p 3.
JPRS 50592

Military Spending Given Increased Priority in
New UAR Budget, by Ibrahim Nafi, 6 pp.

ARABIC, np, al-Ahram, Cairo, 24 Apr 1970, p 9.
JPRS 50707

New UAR Budget Shows Increased Spending and
Revenue, 6 pp.

ARABIC, per, al-Akhbar, Cairo, 24 Apr 1970,
pp 5-6.
JPRS 50707

Efforts to Process, Transport, Market Oil Re-
viewed, by Sahayl as-Sa'dawi, 7 pp.

ARABIC, np, Akhbar Al-Kuwait, Kuwait, 12 Apr
1970, p 5.
JPRS 50592

New Five-Year Development Plan Announced, 9 pp.

ARABIC, np, Al-Jamhuriyyah, Baghdad, 1 Apr 1970,
p 5.
JPRS 50685

Private Sector Given Role in Iraqi Five-Year
Plan, by Shihab at-Tamimi, 5 pp.

ARABIC, np, al-Jumhuriyah, Baghdad, 13 Apr 1970,
p 3.
JPRS 50641

Report on Tax Revenue from Oil Companies Prepared,
5 pp.

ARABIC, np, Ar-Ra'y Al-'Amm, Kuwait, 17 Apr 1970,
p 6.
JPRS 50707

Router of Dubai Guiding Country to Economic
Prosperity, 7 pp.

ARABIC, np, Sada al-Ushu', Bahrain, 21 Apr 1970,
pp 3-5.
JPRS 50685

Middle East
Economic (Contd.)

Middle East
Political

Whofar Socioeconomic Conditions Analyzed, 7 pp.
ARABIC, per, At-Tali'ah, Kuwait, 11 Mar 1970,
pp 7-9.
JPRS 50517

Ministry's Third Five-Year Plan Reported,
5 pp.
ARABIC, np, Al-'Ummal, Cairo, 2 Apr 1970,
p 4.
JPRS 50567

owers of UAR Fiscal Directorates, Directors
Defined, 16 pp.
ARABIC, np, al-Haqa'i'a al-Misriyah, Cairo,
25 Mar 1970, pp 2-9.
JPRS 50517

Rationale for Joint Arab Oil Approach, 5 pp.
FRENCH, per, L'Economie et les Finances des Pays
Arabes, Jan 1970, pp 1-4.
JPRS 50660

Disaster Victims Demand New Credits, Suspension
of Debts, by F. Paskalis, 5 pp.
GREEK, np, Aharavgi, Nicosia, 21 Apr 1970, pp 1, 5.
JPRS 50685

Employment, Rising Living Standard Promotes
Quiet in Occupied Areas, by Arye Avneri, 11 pp.
HEBREW, per, Bamahaneh, Tel Aviv, 1 Apr 1970,
pp 14-15; 7 Apr 1970, pp 21-23.
JPRS 50576

Economic Burden is Given as One Reason for Giving
up Occupied Areas, by Shaul Zahari, 6 pp.
HEBREW, np, Al-Jaridah, Tel Aviv, 20 Mar 1970,
pp 25-26.
JPRS 50545

Israeli Ministry of Development Budget Proposals,
1970-1971, 37 pp.
HEBREW, per, Hatsa'ot Tactsiy Lashmat Haksafaim,
Jerusalem, Feb 1970, 26 pp.
JPRS 50677

Government Securities Report for Fiscal 1968-9,
5 pp.
HEBREW, per, Yalut Hapirsumin, Jerusalem, No 1607,
27 Feb 1970, pp 1474-1476.
JPRS 50517

American Policy Towards Arabs Undergoing a Change,
by Zakariya Kil, 5 pp.
ARABIC, np, al-Ahram, Cairo, 27 Apr 1970, p 5.
JPRS 50660

Situation of Supplies Discussed in UAR National
Assembly, by Jalal al-Sayyid, Sayyid Hajazi,
5 pp.
ARABIC, np, Al-Akhbar, Cairo, 8 Apr 1970, p 6.
JPRS 50545

Former British Policy Blamed for Current Problems
in South Yemen, by Mustafa Taibah, 5 pp.
ARABIC, np, Al-Akhbar, Baghdad, 20 Apr 1970.
JPRS 50545

New Arab Information Director in U.S. To Try
Fresh Approaches, by Mustafa Najib, 7 pp.
ARABIC, np, al-Idha'ah wa al-Talifiyati, Cairo,
2 May 1970, pp 6-7.
JPRS 50660

History, Policy of Constitutional Union Party
Outlined, by Amin Al-Saba'i, 6 pp.
ARABIC, np, Al-Jaridah, Beirut, 8 Feb 1970, p 4.
JPRS 50660

History, Policy of Phalange Party Outlined, by
Amin Al-Saba'i, 14 pp.
ARABIC, per, Al-Jaridah, Beirut, 15 Feb 1970,
pp 10-12.
JPRS 50660

Nationalists Action Movement Voices Political
Aims, by Amin Siba'i, 10 pp.
ARABIC, np, al-Jaridah, Beirut, 29 Mar 1970,
p 4.
JPRS 50576

The Syrian Social Nationalist Party, by
Amin Siba'i, 18 pp.
ARABIC, np, al-Jaridah, Beirut, 5 Apr 1970,
pp 4, 8.
JPRS 50576

Another Viewpoint of Syrian Social Nationalist
Party, by Amin Siba'i, 8 pp.
ARABIC, np, al-Jaridah, Beirut, 7 Apr 1970,
p 4.
JPRS 50576

Middle East
Political (Contd.)

Lebanese Ba'athist Presses for Palestine Liberation, by Amin al-Siba'i, 14 pp.
ARABIC, np, al-Jaridah, Beirut, 26 Apr 1970, p 4.
JPRS 50641

Amir of Qatar Issues New Temporary Constitution, 40 pp.
ARABIC, per, al-Jaridah ar-Rasmiyyah, Qatar, 2 Apr 1970, pp 1-17.
JPRS 50685

Al-Hawtah Conferencees Pledge Continued Support for Revolution, 5 pp.
ARABIC, np, Al-Jundi, Aden, 15 Mar 1970, pp 10, 11, 17.
JPRS 50685

Kuwait Bears Iranian Dominance Behind U.N. Debiscite for Bahrain, 6 pp.
ARABIC, np, al-Tali'ah, Kuwait, 1 Apr 1970, pp 8, 9.
JPRS 50545

Arab Labor Leader Discusses South Yemeni Labor Movement, 6 pp.
ARABIC, np, At-Tali'ah, Kuwait, 15 Apr 1970, pp 10-11.
JPRS 50576

Revolutionary Action in Southern Yemen and Arab World, by Naji Sabri al-Harithi, 8 pp.
ARABIC, np, Ath-Thawrah, Baghdad, 15 Feb 1970, p 3.
JPRS 50545

Revolution Brings Progress to Once-Backward Basra, 7 pp.
ARABIC, np, Ath-Thawrah, Baghdad, 16 Apr 1970, p 6.
JPRS 50685

U.A.R. Local Govt Officials Visit E. Germany, Hungary, Yugoslavia, 6 pp.
ARABIC, np, al-maqatila al-misriyah, Cairo, 12 Mar 1970, pp 3-5.
JPRS 50517

Middle East
Political (Contd.)

Organization, Jurisdiction of U.A.R. Ministry of Local Govt Defined, 25 pp.
ARABIC, np, al-maqatila al-misriyah, Cairo, 16 Mar 1970, pp 2-11.
JPRS 50517

Patah National Liberation Movement Analyzed, 12 pp.
FRENCH, per, Israel-Palestine, Ixelles, Mar 1970, pp 23-34.
JPRS 50707

Israeli Solution Viewed by Socialist Left, 6 pp.
FRENCH, per, Israel-Palestine, Ixelles, Mar 1970, pp 35-39.
JPRS 50707

New Book Published on Israeli Intelligence Services, by Steve Eytan, 5 pp.
FRENCH, np, Le Monde, Paris, 29 Apr 1970, p 7.
JPRS 50576

Report Made on First Year on National Service, (Algeria), by Mazouz Rezigui, 17 pp.
FRENCH, np, La Republique, Oran, 21 Apr 1970, pp 8-9; 22 Apr 1970, pp 8-9; 23 Apr 1970, pp 8-9.
JPRS 50711

Akel to Create Cadres, Attract Youth Through New Methods, 5 pp.
GREEK, np, Pharavri, Kicosia, 7 Mar 1970, pp 5, 6.
JPRS 50545

Reformists Winning at Labor Confederation Congress, by Str. Kharalambopoulos, 5 pp.
GREEK, np, Nea Politida, Athens, 10 Apr 1970, pp 1, 2.
JPRS 50668

Comments Invited on New Decree Regulating Public Gatherings, 9 pp.
GREEK, np, Nea Politida, Athens, 19 Apr 1970, p 2.
JPRS 50660

Dayan: 'We Must Coexist with Russians in Egyptian Skies', by Moshe Dayan, 16 pp.
HEBREW, per, Bamahaneh, Tel Aviv, 14 Apr 1970, pp 5-7, 39.
JPRS 50668

Middle East
Political (Contd)

Rakach Decries Government Anti-Soviet Line, by
Ruth Lubitsch, 6 pp.
HEBREW, np, Zo Haderekh, Tel Aviv, 25 Mar 1970,
p 4.
JPRS 50517

Communism's 50th Anniversary in Israel
Celebrated, 17 pp.
HEBREW, per, Zo Haderekh, Tel Aviv, 1 Apr
1970, pp 4-5.
JPRS 50576

Fight for Peace and Unity in the Peace Camp,
by Uzi Burstein, 5 pp.
HEBREW, np, Zo Haderekh, Tel Aviv, 29 Apr 1970,
p 6.
JPRS 50707

Moshe Dayan Criticized for His Statements, by
Zahi Kharkavi, 5 pp.
HEBREW, np, Zo Haderekh, Tel Aviv, 29 Apr 1970,
p 7.
JPRS 50707

Arab-Israeli Peace Unlikely for Another 10 or 12
Years, 10 pp.
HEBREW, np, Hotam, Tel Aviv, 8 May 1970, pp 2, 3,
4, 5, 22.
JPRS 50660

Nobile Criticizes Israeli Domestic, Arab
Policy, by Aldo Nobile, 5 pp.
ITALIAN, np, Mondo Nuovo, Rome, 19 Apr 1970,
p 6.
JPRS 50567

Zionism Seen as Root of Israeli Alienation in
Middle East, by Ali Asghar-Raj Said Jawadi, 9 pp.
PERSIAN, np, Keyhan, Tehran, 22, 24 Feb, 1 Mar
1970, pp 6, 5, 19, 6.
JPRS 50545

Activities of Rightist Indian Groups Criticized,
by V. Pavlovskiy, 6 pp.
RUSSIAN, np, Za Rubezhom, Moscow, 24-30 Apr 1970,
pp 21, 22.
JPRS 50710

Measures in Regard to Greeks Suggested, by
S. Ulay, 5 pp.
TURKISH, np, Cumhuriyet, Istanbul, 5 Mar 1970,
p 2.
JPRS 50517

Middle East
Political (Contd)

U.S.-Turkey Agreement Leads to Legal Problems,
by H. Eroglu, 7 pp.
TURKISH, np, Ulus, Ankara, 6 Feb 1970, p 2.
JPRS 50517

Military

Egypt Sets Up Air Force-Prep Secondary School,
10 pp.
ARABIC, per, Al-Jaridah Al-Rasmiyah, Cairo,
19 Mar 1970, pp 155-158.
JPRS 50641

Newspaper Items Report Military Topics, 5 pp.
HEBREW, per, Hamahaneh, Tel Aviv, 7 Apr 1970,
pp 18-19.
JPRS 50517

Security in Israel in 1970, by Y. Raviv,
43 pp.
HEBREW, per, Ma'arakhot, Tel Aviv, Vol 55,
No 204, Jan-Feb 1970, pp 3-23.
JPRS 50600

Occupied Areas: Policy and Performance, by
S. Gazit, 27 pp.
HEBREW, per, Ma'arakhot, Tel Aviv, Vol 55,
No 204, Jan-Feb 1970, pp 24-39.
JPRS 50600

Geographic

UAR Law Reorganizes Geological Survey Group,
5 pp.
ARABIC, per, Al-Jaridah Al-Rasmiyah, Cairo,
26 Mar 1970, pp 181-182.
JPRS 50641

Middle East
Sociological

Police Apparatus Strengthened by New Police
Warrant Officers Institute, by
'Abd al-'Azim Lashin, 12 pp.
ARABIC, per, al-Amm al-'Amm, Cairo, No 49,
Apr 1970, pp 3-12.
JPRS 50567

New Surveillance Law Reflects More Modern
Approach to Crime Fighting, by
'Abd as-Sami Salim al-Harawi, 14 pp.
ARABIC, per, al-Amm al-'Amm, Cairo, No 49,
Apr 1970, pp 73-82.
JPRS 50567

Outlook of UAR Police in the Seventies, by
Ahmad Wali, 14 pp.
ARABIC, per, al-Amm al-'Amm, Cairo, No 49,
Apr 1970, pp 83-92.
JPRS 50567

Educational Changes, New Programs Instituted
in Iraq, by Majid al-Lami, 8 pp.
ARABIC, np, al-Jumhuriyyah, Baghdad, 6 Apr
1970, pp 3, 11.
JPRS 50576

Bahrain's 'Isa City Faces Many Problems, by
'Ali Salih, 7 pp.
ARABIC, np, Sada al-'Usbu', Bahrain, 17 Mar 1970,
pp 6, 7.
JPRS 50641

Family, Youth to Utilize Leisure Time Through
New Center, 6 pp.
GREEK, np, Nea Politia, Athens, 16 Apr 1970, p 7.
JPRS 50660

Village Institutes Should be Reopened, by
Fakir Baykurt, 5 pp.
TURKISH, np, Cumhuriyet, Istanbul, 17 Apr 1970,
p 2.
JPRS 50592

FAIR EAST

Economic

Communist China's Industry in 1969, by
Ch'ien Yuan-heng, 19 pp.
CHINESE, per, Chung-kung Yen-chiu, Taipei,
Vol 4, No 3, Jan 1970, pp 3-21.
JPRS 50587

List of Tractor Models Successfully Trial-
Manufactured in Communist China, 25 pp.
CHINESE, per, Chung-kung Yen-chiu, Taipei,
No 3, Mar 1970, pp 98-103.
JPRS 50624

Analysis of Communist China's Local Industry,
17 pp.
CHINESE, per, Fai-ching Yueh-pao, Taipei, 1 Jan
1970, pp 55-60, 66.
JPRS 50587

Communist China's Transportation and Communi-
cations Analyzed, by Chiang Hui, 8 pp.
CHINESE, per, Fai-ching Yueh-pao, Taipei, 1 Mar
1970, pp 68-70.
JPRS 50587

The Decisive Factor is People, 6pp.
CHINESE, per, Hung-ch'i, No. 4, 31 March
1970.
China Mainland Magazines
No. 678-680
13, 20, 27 April 1970

How a Small Plant Produces 500 Trucks
a Year, 8pp.
CHINESE, per, Hung-ch'i, No. 4, 31 March
1970.
China Mainland Magazines
No. 678-680
13, 20, 27 April 1970

Keep a Bigger Stock of Grain and Hay
for Consolidating the Dictatorship of
the Proletariat, 6pp.
CHINESE, per, Hung-ch'i, No. 4, 31 March
1970.
China Mainland Magazines
No. 678-680
13, 20, 27 April 1970

Pay Attention to Multi-Purpose Utilization
by Yu Hung, 5pp.
CHINESE, per, Hung-ch'i, No. 4, 31 March
1970.
China Mainland Magazines
No. 678-680
13, 21, 27 April 1970

A Criticism of the Conservative Idea of
"Having reached the Limit of Latent
Potentials and Production Increase", 5pp.
CHINESE, np, Jen-min Jih-pao, 19 Apr 70
Survey of China Mainland Press
No. 4653
11 May 1970

Investigation Report on Chaotung Hsien,
Heilungkiang Province, 9pp.
CHINESE, np, Jen-min Jih-pao, 4 May 70
Survey of China Mainland Press
No. 4655
13 May 70

A Red Banner on the Commercial Front in
the Countryside, 10pp.
CHINESE, np, Kuang-ming Jih-pao, 14 April
1970
Survey of China Mainland Press
No. 4643
27 April 1970

Production Endlessly Grows Under Socialism, by
Kwang Jong-sop, 16 pp.
KOREAN, per, Kullosa, Pyongyang, no 3, 1 Mar
1970, pp 18-26.
JPRS 50532

Production Cost-Cutting Vital to Socialist
Construction, by Kim Tok-chun, 15 pp.
KOREAN, per, Kullosa, Pyongyang, no 3, 1 Mar
1970, pp 41-43.
JPRS 50532

Local Consumer Goods Industry Urged to Increase
Output, 10 pp.
KOREAN, np, Minju Choson, Pyongyang, 3 Mar 1970,
p 1.
JPRS 50638

The Progress of Fisheries Occupation.
THAI, per, Thai Fisheries Gazette, Vol 22, No 1,
1969, pp 3-8.
*Dept of Interior
BCF/OFF

Thailand's Resin Industry, by Athon Tanthawutho.
THAI, per, The Vansam, Vol 27, No 3, Jul-Sept,
1969, pp. 277-291.
ACSI J-8242
ID 2204006670

Hanoi City Ward Outlines huge Goals for 1970,
by Hoang Linh, 5 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 23 Feb 1970,
p 3.
JPRS 50531

Hanoi Strives to Bring in, Maintain Women in
Labor Force, by Tran Quang Phuong, 5 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 5 Mar 1970,
p 3.
JPRS 50568

Worker's Retirement, Disability Fund
Established, 9 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 27 Mar
1970, p 2.
JPRS 50648

Conference Relates Four-Year Wartime Production
Achievements, 5 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 2 Apr 1970,
pp 1, 2.
JPRS 50630

Rational Service to Customers Recommended,
by Ngo Han, 5 pp.
VIETNAMESE, per, Khoa Hoc Thuong Thuc, Hanoi,
No 323, 15 Mar 1970, p 5.
JPRS 50574

All Out 1970 Labor Campaign Stresses Farm,
Consumer Goods Output, by Le Thanh Nghi, 8 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 4 Jan 1970,
pp 1, 2.
JPRS 50693

Increased Technical Management Emphasized,
by Tran Dai Nghia, 12 pp.
VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc,
Hanoi, No 12, 1969, pp 1-6.
JPRS 50670

Far East
Economic (Contd.)

More Emphasis on Standardization Urged, by
Van Tinh, 14 pp.
VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc,
Hanoi, No 12, 1969, pp 7-13.
JPRS 50670

Standardization of Ready-Made Clothing Urged,
by Hoang Manh Tuan, 8 pp.
VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc,
Hanoi, No 12, 1969, pp 31-33, 35-36, 43.
JPRS 50670

Political

Chinese, Vietnamese Should Unite to Defeat
United States, by Lu Ling-yung, 5 pp.
CHINESE, np, Go Tan Viet Hoa, Hanoi, 19 Mar 1970,
p 2.
JPRS 50531

Chairman Mao's Speech at the First Plenary
Session of the Ninth CCP Central Committee,
6 pp.
CHINESE, per, Chung-kung Yen-chiu, Taipei,
10 Mar 1970, pp 124-126.
JPRS 50564

Further Strengthen the Dictatorship of
the Proletariat, 14pp.
CHINESE, per, Hung-ch'i, No. 4, 31 March
1970.
China Mainland Magazines
No. 678-680
13, 20, 27 April 1970

Carry Out Revolutionary Mass Criticism
in Depth to Secure New Victory in In-
dustrial Products, 6pp.
CHINESE, np, Jen-min Jih-pao, 19 April
1970.
Survey of China Mainland Press
No. 4645
29 April 1970

Problem of Replacing Leaders in Indonesia
Discussed, by Zaenal Arifin, 5 pp.
INDONESIAN, np, Angkatan Bersendjata,
Jakarta, 8 Apr 1970, pp 2, 3.
JPRS 50645

Far East
Political (Contd.)

Mao too Must be part of Communist Ideological
Analysis, 12 pp.
ITALIAN, per, Vento dell'Est, Milan, Apr 1970,
pp 119-132.
JPRS 50703

Political Self-Determination Urged, 17 pp.
KOREAN, per, Kulloja, P'yongyang, No 3, 1 Mar
1970, pp 2-19.
JPRS 50532

Revolutionary Spirit of Self-Reliance Recalled,
by Pak Hui-sok, 13 pp.
KOREAN, per, Kulloja, P'yongyang, No 3, 1 Mar
1970, pp 11-17.
JPRS 50532

Youth League Urged to Intensify Their Work,
13 pp.
KOREAN, per, Kulloja, P'yongyang, No 3, 1 Mar
1970, pp 27-33.
JPRS 50532

Superiority of the Socialist System is to be
Displayed, 13 pp.
KOREAN, per, Kulloja, P'yongyang, No 3, 1 Mar
1970, pp 34-40.
JPRS 50532

Revolutionization of People is Vital to Victory,
by Nam In-hyok, 15 pp.
KOREAN, per, Kulloja, P'yongyang, 1 Mar 1970,
pp 49-56.
JPRS 50532

International Revolutionary Solidarity Urged,
by Ko Son'il, 15 pp.
KOREAN, per, Kulloja, P'yongyang, 1 Mar 1970,
pp 57-64.
JPRS 50532

Democratic Republic Built After Liberation Re-
called, 10 pp.
KOREAN, np, Minju Choson, P'yongyang, 3 Mar 1970,
pp 2-3.
JPRS 50638

Superiority of the Socialist System Described,
by Kang Kum-won, 16 pp.
KOREAN, per, Minju Choson, P'yongyang, 7 Mar 1970,
pp 2-3.
JPRS 50588

Far East
Political (Contd)

Women Reminded of Debt to Kim Il-Song for Their Equality, 7 pp.
KOREAN, np, Minju Chosen, Pyongyang, 8 Mar 1970, pp. 1-2.
JPRS 50523

100 Percent of Electorate Casts Ballots in Local Elections, 5 pp.
KOREAN, np, Minju Chosen, Pyongyang, 12 Mar 1970, p 1.
JPRS 50523

Political, Ideological Training of People's Army Stressed, by Yi Chol-bong, 14 pp.
KOREAN, per, Nodong Chongnyon, Pyongyang, 5 Feb 1970, pp 2-3.
JPRS 50523

Youth to Imitate Ch'ongsal-Li Spirit and Method, 10 pp.
KOREAN, np, Nodong Ch'ongnyon, P'yongyang, 7 Feb 1970, p 1.
JPRS 50638

People's Army is Matchless Revolutionary Power, 8 pp.
KOREAN, np, Nodong Ch'ongnyon, P'yongyang, 8 Feb 1970, p 1.
JPRS 50638

Greater Role Stressed for Youth Organizations, Schools, by Kim Myong-ho, 7 pp.
KOREAN, np, Nodong Chongnyon, Pyongyang, 11 Feb 1970, p 3.
JPRS 50523

Youth Urged to Study Kim Il-song's Revolutionary History, 14 pp.
KOREAN, np, Nodong Ch'ongnyon, P'yongyang, 15 Feb 1970, p 1.
JPRS 50638

How to Solve the Rural Question Under Socialism, 7 pp.
KOREAN, np, Nodong Ch'ongnyon, P'yongyang, 15 Feb 1970, p 2.
JPRS 50638

Study Summarizing must be at a High Political Level, by Yi Un-sik,
KOREAN, np, Nodong Ch'ongnyon, P'yongyang, 15 Feb 1970, p 3.
JPRS 50638

Far East
Political (Contd)

Meaning of Thesis on Rural Problem Explored, by Chung Il-hyong, 6 pp.
KOREAN, np, Nodong Sinmun, P'yongyang, 3 Feb 1970, p 2.
JPRS 50588

Preparations Urged for Government Organ Elections, 5 pp.
MONGOLIAN, per, Ardyn Tor, Ulan Bator, No 2, 1969, pp 3-5.
JPRS 50542

Effective Checks of Local Governments are Urged, by B. Bandzragch, 8 pp.
MONGOLIAN, per, Ardyn Tor, Ulan Bator, No 2, 1969, pp 6-11.
JPRS 50542

Enactment and Enforcement of MPR Laws Clarified, by D. Horhoy, 9 pp.
MONGOLIAN, per, Ardyn Tor, Ulan Bator, No 2, 1969, pp 26-32.
JPRS 50542

Emancipation of Mongolian Women Praised, by E. Chimedtseren, 6 pp.
MONGOLIAN, per, Ardyn Tor, Ulan Bator, No 2, 1969, pp 33-36.
JPRS 50542

How Constituents' Mandate is to be Carried Out, by T. Tserendorj, 6 pp.
MONGOLIAN, per, Ardyn Tor, Ulan Bator, No 2, 1969, pp 50-54.
JPRS 50542

Historical Phases in Party's 40 Years of Activity, 9 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 22 Jan 1970, p 2.
JPRS 50557

Failures in Hanoi Party Operations Enumerated, 6 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 26 Feb 1970, pp 1, 2.
JPRS 50531

Articles Show Ho's Early Idolization of Lenin as Afro-Asian Friend, 5 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 29 Mar 1970, p 3.
JPRS 50648

Lenin's Influence on VN Revolution Described,
5 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 15 Apr 1970,
pp 1, 3.
JPRS 50612

The South Vietnamese Revolution Must Be
Protracted, Arduous, and Complex but Will
be Victorious, by Minh Tranh, 14 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 2,
Feb 1963, pp 45-53.
JPRS 50574

President Ho Discusses Leninism and the Viet-
namese Revolution, 5 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 1-6.
JPRS 50598

Resolution of the Political Bureau of the Party
Central Committee on the Campaign to Improve the
Quality of Party Members and Recruit the Ho Chi
Minh Class of Party Member, 7 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 9-15.
JPRS 50598

A Literary Work Which Illuminates the Revolution-
ary Road of Our People, 11 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 16-27.
JPRS 50598

Strive to Improve the Quality of Party Members
and do Well in Recruiting Party Members of the
Ho Chi Minh Class, 10 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 28-34.
JPRS 50598

Let Us Struggle and Train in Order to be Worthy
of Being the Ho Chi Minh Youth Generation, 6 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 35-38.
JPRS 50598

Concerning the National Spirit in Music, by
Ha Huy Giap, 10 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, Mar 1970, No 3,
pp 39-45, 65.
JPRS 50598

The Development of the Vietnam Women's Movement,
by Ha Thi Que, 13 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 46-54.
JPRS 50598

The Heroic South Develops the Big Victories of
Two Years of General Offensive, Resolves to Smash
the 'Vietnamization' Plan of the U.S. Imperial-
ists, and Moves Toward Complete Victory, by
Trung Dung, 14 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 55-65.
JPRS 50598

Exchange of Experiences -- Yen Bai Constantly
Strives for Progress, by Nguyen Ngoc Cu, 7 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 66-69, 76.
JPRS 50598

Expansion of Liberated Zones Reemphasized, by
Nguyen Hoai, 38 pp.
VIETNAMESE, per, Nghien Cuu Lich Su, Hanoi,
No 129, Dec 1969, pp 42-58.
JPRS 50553

Formation of Indochinese Communist Party, 5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 6 Jan 1970,
pp 1, 2.
JPRS 50557

1970 Political Theses of Indochinese Communist
Party, by Tran Phu.
VIETNAMESE, np, Nhan Dan, Hanoi, 9 Jan 1970,
pp 1, 2.
JPRS 50557

Letter on Faults of Party Members, by
Ho Chi Minh, 5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 17 Jan 1970,
pp 1, 4.
JPRS 50557

Hoang Quoc Viet Reports on Summit Conference of
Indochinese People, by Hoang Quoc Viet, 5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 29 Apr 1970,
p 2.
JPRS 50702

Far East
Political (Contd)

1930 Political Theses of Indochinese Communist Party, by Tran Phu.
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 5 Jan 1970, p 3.
JPRS 50557

1933 Communist Trial Reported Through Survivors' Memoirs, by Huong Dinh, 10 pp.
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 10 Jan 1970, p 3.
JPRS 50557

Seventh Meeting of Indochinese Communist Party Central Committee, 5 pp.
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 24 Jan 1970, p 3.
JPRS 50557

The Party is our Mother, 6 pp.
VIETNAMESE, np, Tien Hong, Hanoi, 20 Jan 1970, p 3.
JPRS 50557

Instruction on Propaganda Studies and Activities to Help in the Study of Comrade Le Duan's Work, 34 pp.
VIETNAMESE, per, Tuyen Huan, No. 3-4, 1970.
JPRS 50577

Military

Party Committee of a Certain Island-Defense Army Unit Build Its Leading Group with Mao Tse-tung's Thought, 5pp.
CHINESE, np, Jen-min Jih-pao, 24 April 70
Survey of China Mainland Press
No. 4647
1 May 1970

Military Ideology of Ho Chi Minh Outlined, by Tran Huy Lieu, 33 pp.
VIETNAMESE, per, Nghien Cuu Lich Su, Hanoi, Sept 1969, pp 18-36, 64.
JPRS 50574

Far East
Military (Contd)

Old Party Military Documents, 11 pp.
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 28 Jan 1970,
JPRS 50557

Engineers Commended for Keeping the Road Open to South Vietnam, by Chu Thanh Huong, 5 pp.
VIETNAMESE, np, Quan Doi Nhan Dan, Hanoi, 25 Mar 1970, p 3.
JPRS 50531

Sociological

Advertising Bourgeois Art and Literature Means Restoration of Capitalism, 12pp.
CHINESE, per, Hung-ch'i, No. 4, 31 March 1970.
China Mainland Magazines
No. 678-680
13, 20, 27 April 1970

The Dialectics of Safety in Motoring, 5pp.
CHINESE, per, Hung-ch'i, No. 4, 31 March 1970.
China Mainland Magazines
No. 678-680
13, 20, 27 April 1970

The Proletarian Revolution in Education Has a Great Future, 5pp.
CHINESE, per, Hung-ch'i, No. 4, 31 March 1970.
China Mainland Magazines
No. 678-680
13, 20, 27 April 1970

Employ Them in the Course of Educating Them, Intensify the Education of Them in the Course of Employing Them, 5pp.
CHINESE, np, Jen-min Jih-pao, 21 April 1970.
Survey of China Mainland Press
No. 4647
1 May 1970

Thoroughly Criticize Reactionary "Whole-People Literature and Art", by Chou Yang, 15pp.
CHINESE, np, Kuang-ming Jih-pao, 19 April 1970.
Survey of China Mainland Press
No. 4646
30 April 1970

Best Ways to Fight Larceny Explained, by D. Dashdemberel, 6 pp.
MONGOLIAN, per, Ardyn Tor, Ulan Bator, No 2, 1969, pp 37-41.
JPRS 50542

At the Hanoi Police Inspector's Office, by Tran Dang Minh, 6 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 21-22 Jan 1970, p 3.
JPRS 50557

Stronger Sanitation Regulations Proposed for Hanoi, 9 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 14 Apr 1970, p 2.
JPRS 50568

Ward Committee Cracks Down to Maintain Local Law and Order, by Phuong Lan, 5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 12 Apr 1970, p 2.
JPRS 50549

Postal Sector Increases Use of Female Employees, by Vu Cong Thao, 5 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 18 Apr 1970, p 2.
JPRS 50549

Biography

Tran Hoc Mai, by Nam Thanh, 5 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 20 Jan 1970, p 3.
JPRS 50557

Hoang Quoc Viet, by Hoang Quoc Viet, 5 pp.
VIETNAMESE, np, Quan Loi Nhan Dan, Hanoi, 11 Jan 1970, p 3.
JPRS 50557

LATIN AMERICA
Economic

Study Reveals Decline of Private Business Firms, 7 pp.
PORTUGUESE, np, Jornal do Brazil, Rio de Janeiro, 21 Apr 1970, pp. 22.
JPRS 50518

President Announces New Labor Legislation, 6 pp.
PORTUGUESE, np, O Globo, Rio de Janeiro, 1 May 1970, p 3.
JPRS 50621

Eightfold Increase in Fish Production Claimed, by Fulvio Fuentes, 9 pp.
SPANISH, np, Bohemia, Havana, 20 Mar 1970, pp 28-35.
JPRS 50669

The Shellfish Industry, by B. Andreu.
SPANISH, per, Ciencias, Vol 32, No 4, 1967, pp 255-265.
Dept of Interior
BCF/OFF
A-37-March 1970-No 103
On Loan

Bank President Cites Record Dollar Reserves, 6 pp.
SPANISH, np, El Comercio, Lima, 10 May 1970, p 4.
JPRS 50646

Unemployment Seen as Colombia's Gravest Problem, by Josefina Uribe de Abello, 7 pp.
SPANISH, np, Cronos, Bogota, 4 May 1970, pp 4, 6, 7.
JPRS 50621

Crisis in Central American Common Market, 7 pp.
SPANISH, np, Diario El Grafico, Guatemala, 20 Feb 1970, pp 4, 5.
JPRS 50538

National Planning Agency Studies Unemployment, by Javier Ayala, 6 pp.
SPANISH, np, El Espectador, Bogota, 30 Apr 1970, pp 1-A, 4-A.
JPRS 50621

Solutions for Unemployment Problem Proposed,
by Javier Ayala, 6 pp.
SPANISH, np, El Espectador, Bogota, 1 May 1970,
pp 1-7.
JPRS 50684

Document Outlines Workers' Demands for Action,
6 pp.
SPANISH, np, Libertad, San Jose, 4 Apr 1970,
p 5.
JPRS 50538

Mining Law Reclaimed Despite Pressures, 7 pp.
SPANISH, np, Uiga, Lima, 17 Apr 1970, pp 8-9-33.
JPRS 50510

How American 'Pirate' Fishermen Despoil
Mexico, by Lorenzo Rodriguez Herrera, 5 pp.
SPANISH, per, Por Que?, Mexico City, 2 Apr 1970,
pp 17-20.
JPRS 50538

President Discusses Potential of Mining
Industry, 6 pp.
SPANISH, np, La Prensa, Buenos Aires, 8 May
1970, pp 1, 22.
JPRS 50646

Colombia Submits Economic Policy for IMF Review,
5 pp.
SPANISH, np, El Tiempo, Bogota, 24 Apr 1970,
pp 1, 13.
JPRS 50555

Political

Lenin and the Founding of the First Communist
Party of Cuba, by Fabio Grabart, 10 pp.
ENGLISH, per, Granma Weekly Review, Havana, 10 May
1960, pp 2, 3.
JPRS 50669

Chilean Leftist Presidential Candidate's Views,
5 pp.
ITALIAN, np, Mondo Nuovo, Rome, 5 Apr 1970,
p 10.
JPRS 50579

Unions Offer Services to Retain Members, 6 pp.
PORTUGUESE, np, Jornal do Brasil, Rio de Janeiro,
3 May 1970, p 3.
JPRS 50579

President's Speech Outlines Foreign Policy, by
Medici, 6 pp.
PORTUGUESE, np, Estado de Sao Paulo, Sao Paulo,
21 Apr 1970, p 9.
JPRS 50518

El Chocón Project General Strike Analyzed, 5 pp.
SPANISH, per, Cristianismo y Revolucion, Buenos
Aires, Apr 1970, pp 9-11.
JPRS 50518

Agustin Tosco Answers Questions About Cordoba,
5 pp.
SPANISH, per, Cristianismo y Revolucion,
Buenos Aires, Apr 1970, pp 14-15.
JPRS 50621

Third World Priests State Objectives of Move-
ment, by Jorge Vernazza, 6 pp.
SPANISH, per, Cristianismo y Revolucion,
Buenos Aires, Apr 1970, pp 25-26.
JPRS 50621

Platforms of Presidential Candidates Discussed,
by Luis Hernandez Barker, 6 pp.
SPANISH, per, Arcilla, Santiago Chile, 8-15 Apr
1970, pp 8-10.
JPRS 50555

Presidential Candidates Give Pre-Election
Views, 6 pp.
SPANISH, per, Flash, Bogota, 16 Apr 1970,
pp 11-15.
JPRS 50621

Search for Invaders Continues in Oriente,
by Juan Marrero, Felix Pita Astudillo, 8 pp.
SPANISH, np, Granma, Havana, 24 Apr 1970,
pp 2-5.
JPRS 50579

American Cano-Cutter Brigade Issues Statement,
5 pp.
SPANISH, np, Juventud Rebelde, Havana, 22 Apr
1970, p 4.
JPRS 50555

Student Federation Functions with Two Presidents,
by Fernando Villarreal Gutierrez, 5 pp.
SPANISH, np, Manana, Quito, 9 Apr 1970, pp 18, 19.
JPRS 50555

Reyes Claims to be Legal President of Federation,
by Fernando Villarreal Gutierrez, 6 pp.
SPANISH, np, Manana, Quito, 9 Apr 1970, pp 19,
20, 25.
JPRS 50555

Chile and World Turn Toward Pacific, by
Carlos Maudon, 7 pp.
SPANISH, per, Mensaje, Santiago, No 187,
Mar-Apr 1970, pp 96-99.
JPRS 50518

Role of Christians in Politics Discussed, by
Manuel Ossa, 8 pp.
SPANISH, per, Mensaje, Santiago, Mar-Apr 1970,
pp 103-107.
JPRS 50579

Planning Ministry Presents Study to President,
7 pp.
SPANISH, per, La Nacion, San Jose, 17 Apr 1970,
pp 40-44.
JPRS 50538

Official Report Made on Extremist Activities,
5 pp.
SPANISH, np, La Nacion, Buenos Aires, 8 May
1970, pp 1, 24.
JPRS 50579

Now Venezuelan Cabinet Members Interviewed,
6 pp.
SPANISH, np, El Nacional, Caracas, 15 May 1970,
p D-20.
JPRS 50646

Nueva Estrategia Urges Support for Allende, 9 pp.
SPANISH, per, Nueva Estrategia, Santiago, Chile,
No 4, Apr-May 1970, pp 9-17.
JPRS 50518

New Revolutionary Left Warns of Pitfalls, by
Antilino, 9 pp.
SPANISH, per, Nueva Estrategia, Santiago de Chile,
No 4, Apr-May 1970, pp 25-34.
JPRS 50518

Reactionary Forces Blamed for Attack on
Fidel Office, 5 pp.
SPANISH, np, El Popular, Montevideo, 8 May
1970, p 3.
JPRS 50646

Reasons for Mining Congress Failure Analyzed,
by Victor Hugo Carvajal, 5 pp.
SPANISH, np, Presencia, La Paz, 19 Apr 1970,
Second Section, p 1.
JPRS 50579

People's Militia Explained and Defended, 13 pp.
SPANISH, per, Punto Final, Santiago, 14 Apr
1970, pp 1-7.
JPRS 50538

Elections Considered Futile as Means to Power,
by Varilarguero, 5 pp.
SPANISH, np, Punto Final, Santiago, 28 Apr
1970, pp 2-3.
JPRS 50621

Murder of West German Ambassador Justified,
by Jorge Silva Luvecce, 5 pp.
SPANISH, per, Punto Final, Santiago, 28 Apr
1970, pp 10-11.
JPRS 50621

Chilean CP Reaffirms Leninist Principles, by
Carlos Berger, 7 pp.
SPANISH, np, El Siglo, Santiago, 22 Apr 1970,
p 7.
JPRS 50606

Communist Senator Analyzes Work of Lenin, by
Volodia Tuitelboim, 21 pp.
SPANISH, per, El Siglo, Santiago, Chile, 23 Apr
1970, pp 7-9.
JPRS 50555

CIA Charged with German Ambassador's Killing,
by Miguel Gutierrez Vertti, 9 pp.
SPANISH, per, Sucesos, Mexico City, 2 May 1970,
pp 24-27.
JPRS 50538

Marxist Left Found in Process of Disintegration,
6 pp.
SPANISH, np, Sursum, Caracas, 1-15 May 1970, pp 4-6.
JPRS 50669

Central Committee Submits Draft of PCV Statutes,
18 pp.
SPANISH, per, Tribuna Popular, Caracas,
22-29 Apr 1970, pp S-2, S-3, S-4.
JPRS 50579

Pedro Saad cites National Liberation Aims,
by Xavier Benedetti, 29 pp.
SPANISH, per, El Universo, Guayaquil, 25 Apr
1970, pp 8-10.
JPRS 50579

Geographic

Valledupar Mountain Range Described, by
Jose Francisco Socarras, 10 pp.
SPANISH, np, El Siglo, Bogota, 12 Apr 1970,
p 1.
JPRS 50606

Sociological

Minister Outlines Educational System Changes,
7 pp.
PORTUGUESE, np, O Globo, Rio de Janeiro, 8 May
1970, p 3.
JPRS 50684

Priests Ask for Optional Celibacy, Right to
Work, 8 pp.
SPANISH, np, Presencia, La Paz, 14 Apr 1970,
pp 3, 5.
JPRS 50579

NORTH AMERICA
Economic

Cybernetics in the U.S. Steel Industry, by
A. F. Myrzymov, 11 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, Apr 1970, pp 100-105.
JPRS 50637

Political

Evolution of Taylorism, by D. M. Gvishiani, 16 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, 1970, pp 61-70.
JPRS 50637

Washington and Africa, by V. L. Kudryavtsev, 7 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, Apr 1970, pp 75-78.
JPRS 50637

Russian Studies Centers in the U.S., by
V. P. Filatov, 5 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, Apr 1970, pp 110-114.
JPRS 50637

The More the U.S. Imperialists and Their Lackeys
Expand the Special War in Laos, the More Serious
Their Defeats, by Thanh Son, 9 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 77-83.
JPRS 50598

The Cambodian Coup D'Etat: A New Act of
Aggression by the U.S. Imperialists, by
Binh Luan, 5 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 84-87.
JPRS 50598

Substance of Nixon's So-Called 'Peace Plan'
and the 'Nixon Doctrine', by Nguyen Van Kinh,
10 pp.
VIETNAMESE, per, Hoc Tap, Hanoi, No 3, Mar 1970,
pp 88-95.
JPRS 50598

North America
Military

Special Troops, by A. S. Ivanov, 7 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, Apr 1970, pp 106-110.
JPRS 50637

Sociological

Abel Tells of U.S. Prisons, Exchange for
Powers, by R. Abel', 13 pp.
RUSSIAN, per, Nedelya, Moscow, No 15, 6-12 Apr
1970.
JPRS 50558

WORLD WIDE
Economic

Modern Forms of International Control Over the
Implementation of Fishing Regulations, by
A. A. Volkov, 6 pp.
RUSSIAN, per, Rybnoe Khoz., Vol 42, No 6, 1966,
pp 84-86.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 76
On Loan

SCIENTIFIC
Aeronautics

The Use of Discontinuous Glide Hyperplanes in Systems with a Variable Structure, by I. M. Makarov, V. Z. Rakhmankulov, 5 pp. RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow, Vol 191, No 3, 1970, pp 548-550. JPRS 50596

Round Turbulent Jet in a Cross Flow, by N. I. Akatnov. RUSSIAN, per, Izv AN SSSR, Mekhan Zhid i Gaza, No 6, 1969, pp 11-19. Dept of Navy APL/JHU T-2422

Parachute Packing, by Yu. Shtennikov. 14 pp. RUSSIAN, per, Kryl'ya Rodiny, No-2, 1969, pp 26-29. AIR/FTD/HT-23-586-69

Velocity and Temperature Distribution in a System of Plane Jets, by M. A. Izyumov, D. M. Khzmalyan. 19 pp. RUSSIAN, per, Nauchno-Tekh Obshch Energet Promy. Tsent Pravleniye. Sektsiya Gazifikatsiy. Teoriya i Praktika Szhiganiya Gaza, Vol 4, 1968, pp 25-39. AIR/FTD/MT-24-393-69

Approximate Methods of Calculating the Distribution of Velocity with Altitude During the Braking of Bodies in the Atmosphere, by O. A. Privarnikov. 9 pp. RUSSIAN, per, Samoletostroyeniye i Tekhnika Vozdushnogo Flota, No 13, 1968, pp 10-15. AIR/FTD/HT-23-602-69

Ducted Fans with Downstream Diffusion, by B. Chezelpretre. 82 pp. FRENCH, Rpt, 68-Bc-17. NASA TT F-12,891

How to Judge the Reliability of an Airborne "System", by C. Lievens. 21 pp. FRENCH, rpt, Comment Porter un Jugement sur la Fiabilite d'un "Ensemble" Aeroporte, May 1969, 20 pp. AIR/FTD/HT-23-533-69

Determination of the Field of Sound Generated by a Jet Aircraft in Motion, by M. Kobrynski. FRENCH, per, Office National D'Etudes et de Recherches Aeronautiques TP no. 687, 1969 pp 9-11. *NASA TT F -13,096

Scientific
Aeronautics (Contd)

A STOL Transport from the CSSR - the L- 140 Turbolet, by D. Soidl GERMEN, per, Flugrevue/Flugwelt International, Oct 1969, pp 64-67. *NASA TT F 13,098

On the Possibilities of Simulating the Flight Operating Conditions of Turbine Engines on a Test Stand, by Q. Kordzinski. POLISH, per, Technika Lotnicza i Astronautyczna, Vol 24, No 2, 1969, pp 23-25. AIR/FTD/HT-23-67-70

SAAB 105 - a Two Engined Turbojet Aircraft, by R. Hardmark. SWEDISH, per, Teknisk Tidskrift, Vol 95, 1965, pp 73-78. *NASA TT F 13,100

Agriculture

Agrochemistry of the Soils of the USSR, by A.V. Sokolov, E.I. Shkonde, 360pp. RUSSIAN, bk, Agrokhimicheskaya Kharakteristika Pochv SSSR, vol 4, 1964. CFSTI TT 69-55090

Greater Fulfillment of Liming Plans Urged, by V. Markovets, 5 pp. RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, No 14, 1970, p 18. JPRS 50547

Gosplan Deputy Chairman Discusses Agriculture, by N. Gusev, 11 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, Moscow, No 3, 1970, p 1-8. JPRS 50547

Mechanization of Animal Husbandry Analyzed, by M. Goryachkin, 21 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, Moscow, No 3, 1970, pp 38-49. JPRS 50561

Effect of Agriculture Chemicalization Assessed, by N. Baranov, 24 pp. RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, Moscow, No 3, 1970, pp 50-62. JPRS 50561

Scientific
Agriculture (Contd)

Draft Water Use, Pollution Legislation Proposed,
17 pp.
RUSSIAN, np, Izvestiya, Moscow, 28 Apr 1970, p 3.
JPRS 50536

Problems of Siberian Grain Raising Reviewed,
by A. A. Noskov, 9 pp.
RUSSIAN, per, Izvestiya Sibirskogo Otdeleniya
Akademii Nauk SSSR, Novosibirsk, No 1, 1970,
pp 133-138.
JPRS 50561

Animal Husbandry Needs Improvement, 6 pp.
RUSSIAN, np, Komsomol'skoye Znamya, Kiev,
4 Apr 1970, p 1.
JPRS 50558

Link Versus Brigade Type Operations Discussed,
by A. Yanov, 8 pp.
RUSSIAN, per, Literaturnaya Gazeta, Moscow,
No 13, 8 Apr 1970, p 10.
JPRS 50561

Ways of Improving Use of Water Resources Suggested,
13 pp.
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana,
Alma-Ata, No 3, 1970, pp 78-85.
JPRS 50657

Ukraine Spring Sowing Rates Beat Last Year's,
5 pp.
RUSSIAN, per, Pravda Ukrainy, Kiev,
9, 10 Apr 1970.
JPRS 50603

Effects of Fertilizer on Grain Yields Discussed
by N. Kopanov, N. Ivanchenko, 7 pp.
RUSSIAN, np, Sel'skaya Zhizn', Moscow, 14 Mar
1970, p 2.
JPRS 50603

Kolkhoz Chairman Discusses Recent Achieve-
ments, by V. Orlov, 8 pp.
RUSSIAN, np, Sel'skaya Zhizn', Moscow,
26 Mar 1970, p 2.
JPRS 50603

Scientific
Agriculture (Contd)

Scots Pine (Variation, Intraspecific
Taxonomy and Selection), by L.F. Pravdin
208pp.
RUSSIAN, bk, Sosna Obyknoennaya (Izmen-
chivost', Vnutrividovaya Sistematika i
Selektsiya, 1964.
CFSTI TT 69-55066

Moldavian Winter Grain Crop Increase Sought,
by P. Labasov, 5 pp.
RUSSIAN, np, Sovetskaya Moldaviya, Kishinev,
24 Mar 1970, p 2.
JPRS 50547

General Course of Reorganization of Agriculture,
by G. A. Aksenok, 11 pp.
RUSSIAN, per, Sovetskoye Gosudarstvo i Pravo,
Moscow, No 4, Apr 1970, pp 50-59.
JPRS 50623

Minister Lauds Progress in Land Improvement,
by Ye. Ye. Alekseyevskiy, 7 pp.
RUSSIAN, np, Turkmenkaya Iskra, Ashkhabad,
17 Apr 1970, p 2.
JPRS 50561

Intensification, Technical Progress in Animal
Husbandry Examined, by A. I. Ovsyannikov, 9 pp.
RUSSIAN, per, Zhivotnovodstvo, Moscow, No 4, 1970,
pp 21-25.
JPRS 50678

Need for Solid Fodder Base Emphasized, by
M. P. Kalganov, 6 pp.
RUSSIAN, per, Zhivotnovodstvo, Moscow, No 4,
1970, pp 78-81.
JPRS 50678

Iraqi Sugar Harvest Popular Work Reported on, by
Yahya Zaki, 5 pp.
ARABIC, np, Al-Jumhuriyyah, Baghdad, 5 pp.
JPRS 50668

Uses of Computers in Agriculture Outlined,
by Dimitur Parmakov, 6 pp.
BULGARIAN, per, Mekhanizatsiya i Elektrifikatsiya
na Selското Stopanstvo, Sofia, Mar 1970,
pp 25-27.
JPRS 50559

Scientific
Agriculture (Contd)

New Tasks of Soil Science Outlined, by
Ivan Gurbuchev, 5 pp.
BULGARIAN, np, Rabotnichesko Delo, Sofia,
6 May 1970, p 3.
JPRS 50626

Rural Development Minister Reviews Farm Programs,
(Senegal), 15 pp.
FRENCH, np, L'Asie-Matin, Dakar, 15 Apr 1970, p 4;
16 Apr 1970, p 4; 17 Apr 1970, p 4.
JPRS 50498

Onama Director Discusses New Farm Equipment
Program, (Algeria), 5 pp.
FRENCH, np, El Moudjahid, Algiers, 12-13 Apr
1970, p 5.
JPRS 50541

Principles, Methods of Agrarian Reform
Explained, (Algiers), 26 pp.
FRENCH, np, El Moudjahid, Algiers, 16, 17,
18 Apr 1970.
JPRS 50581

Renewed Effort Demanded of Youth to Meet
Agricultural Goals, 6 pp.
KOREAN, np, Nodong Chongnyon, Pyongyang,
11 Feb 1970, p 1.
JPRS 50523

Concentration on Farm Preparations Urged, 5 pp.
KOREAN, np, Nodong Sinmun, Pyongyang, 30 Jan 1970,
p 1.
JPRS 50638

Strengthening of Agricultural Cooperative
Democracy Urged, by D. Amarhuu, 8 pp.
MONGOLIAN, per, Ardyn Tor, Ulan Bator, No 2,
1969, pp 20-25.
JPRS 50542

More PFZ Land for Private Farmers Advocated, by
Jozef Zuk, 7 pp.
POLISH, per, Wies Wspolczesna, Warsaw, Apr 1970,
pp 111-117.
JPRS 50651

Development of Fodder Production Examined,
9 pp.
RUMANIAN, per, Ferma si Intreprinderes
agricola de stat, Bucharest, Mar 1970, pp 1-4.
JPRS 50559

Scientific
Agriculture (Contd)

Modernization of Socialist Agriculture Discussed,
by A. Miculescu, 12 pp.
ROMANIAN, per, Lupta de Clasa, Bucharest, No 4,
Apr 1970, pp 98-107.
JPRS 50626

Basic Trends in the Development of Cooperative
Farms, by D. Dumitriu, 13 pp.
RUMANIAN, per, Probleme Economice, Bucharest,
Feb 1970, pp 96-106.
JPRS 50640

Programs for Modernizing Agriculture Discussed,
by Teodor Marian, 10 pp.
ROMANIAN, per, Probleme Economice, Bucharest,
Apr 1970, pp 118-124.
JPRS 50682

Structural Changes in Private Farms During 1960-
1969, by Debrosav Tadic, 9 pp.
SERBO-CROATIAN, per, Ekonomika Poljoprivrede,
Belgrade, No 3, Mar 1970, pp 153-159.
JPRS 50682

Farm Structure, Production, Number of Farmers
Given, 35 pp.
SERBO-CROATIAN, per, Ekonomika Poljoprivrede,
Belgrade, No 4, 1970, pp 283-318.
JPRS 50626

Farm Prospects Under 1971-1975 Plan Reviewed,
by Dzemal Drace, 9 pp.
SERBO-CROATIAN, per, Poljoprivreda, Belgrade,
Jan 1970, pp 1-8.
JPRS 50640

Increase in Planted Trees in Gia Lam Reported,
by Nguyen Nham, 5 pp.
VIETNAMESE, np, Hanoi Moi, Hanoi, 11 Mar 1970,
p 3.
JPRS 50612

Spring Rice Has Good Prospects in Vietnam, by
Dao The Tuan, 8 pp.
VIETNAMESE, per, Khoa Hoc Thuong Thuc, Hanoi,
No 321, 15 Feb 1970, pp 1, 3; No 323, 15 Mar
1970, p 3.
JPRS 50693

Article Discusses Ways to Protect Rice Against
Insects, by Duong Hong Dat, 5 pp.
VIETNAMESE, np, Hanoi Dai, Hanoi, 26 Feb 1970, p 2.
JPRS 50531

Scientific
Agriculture (Contd)

How to Grow Spring Rice Over Large Areas, 17 pp.
VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc,
Hanoi, No 11, Nov 1969, pp 21-28.
JPRS 50612

Conference Reviews Research on Raw Pig Feed, by
Le Van Ban, 6 pp.
VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc,
Hanoi, No 12, pp 46-49.
JPRS 50670

Astronomy & Astrophysics

Atomic Absorption Spectroscopy, by
B.V. L'vov, 251pp.
RUSSIAN, bk, Atomno-Absorbtsionnyi
Spektral'nyi Analiz, 1966
CFSTI TT 69-55015
AEC tr-6979
UC-4

The Astrophysics of Cosmic Rays, by V. L. Ginzburg.
60 pp.
RUSSIAN, bk, Kosmicheskiye Luchi u Zemli i vo
Vselennoy, 1967.
NASA TT F-561
CFSTI TT 69-55024

Solar Radio Burst Observations with High Time-
Resolution, by F. Droge.
GERMAN, per, Zeitschrift fur Astrophysik, Vol 66,
1967, pp 200-214.
Dept of Navy APL/JHU T-2417

Atmospheric Sciences

Aviation Climatology, by G. Ya. Narovlyanskii,
218pp.
RUSSIAN, bk, Aviatsionnaya Klimatologiya, 1968
CFSTI TT 69-55100

Similarity Theory for Large Scale Motion
of Planetary Atmosphere, by G.S. Golitsyn,
RUSSIAN, per, Doklady, Institut Fiziki
Atmosfery, pp. 323-326.
*NASA TT F-13140

Scientific
Atmospheric Sciences (Contd)

The Determination of Vertical Motions in Rain by
Means of Doppler Radar, by A. G. Gorelik and
B. F. Logunov,
RUSSIAN, per, Izv. A. N. SSSR Fiz. Atmos. Okean.,
No 5, 1969, pp 543-545.
NLL Ref: 5828.4F (M 7870)

Formation Depths of Absorption Lines in
the Solar Atmosphere, by V.G. Buslavsky,
17pp.
RUSSIAN, per, Izv. Akad. Nauk SSSR.
Krymskaya Astrofizicheskaya Obser-
vatoriya, No. 39, 1969, pp. 317-324.
Tr No 70, March 1970
AIR/AFCRL/70-0188

The Turbulence in Quiescent Prominences
and Shock Waves in the Upper Atmosphere,
by E. Ye. Dubov, 11pp.
RUSSIAN, per, Izv. Akad. Nauk SSSR.
Krymskaya Astrofizicheskaya Obser-
vatoriya, No. 69, 1969, pp. 295-298.
Tr No 72, March 1970
AIR/AFCRL/70-0194

Atmospheric Transparency in the Visible
and the Infrared, by V.E. Zuev, 215 pp.
RUSSIAN, bk, Prozrachnost' Atmosfery
dlya Vidimykh i Infrakrasnykh Luchei,
1966.
CFSTI TT 69-55102

Carbon Dioxide Content of the Atmosphere Above
the Pacific and Indian Oceans and Above the Northern
Regions of the Black Sea, by S. V. Liutsarev,
S. V. Bruevich, 15 pp.
RUSSIAN, per, Trudy Ak Nauk SSSR, Inst Okean, No 67,
1964, pp 7-40.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 61
On Loan

Investigation of the Wind Error in Measuring
Precipitation, by Ye. G. Bogdanova.
RUSSIAN, per, Trudy Glav Geofiz Obser, 1966,
pp 40-62.
*CFSTI TT 70-59013

Estimate of the Error in Measuring Wind Velocity
by an Anemometer Mounted on a Buoy, by
R. S. Bortkovskiy.
RUSSIAN, per, Trudy, Glavnaya Geofizicheskaya
Observatoriya, Vol 187, 1966, pp 163-166.
NAV/NOO/Tran-366-70

Scientific
Atmospheric Sciences (Contd)

The Problem of Wind Errors in Precipitation Measuring Devices in the Territory of the Ural, by V. A. Taromzhenina.
RUSSIAN, per, Trudy Glav Geofiz Obser, 1966, pp 167-170.
*CFSTI TT 70-59014

Numerical Experiments in Modifying the Kinetics of Cloud Spectrum Formation by Introducing Additional Condensation Nuclei, by Yu. S. Sedunov, 9 pp.
RUSSIAN, per, Trudy Instituta Eksperimental'noy Meteorologii GUGMS, No 6, 1969, pp 3-9.
JPRS 50525

Electron Component of Solar Cosmic Rays, by V. N. Lutsenko, N. F. Pisarenko..
RUSSIAN, per, Trudy Mezhdunarodnogo Seminara po Izucheniyu Fiz Mezhpplanetnogo Prostranstva s Pomoshch'yu Kosmicheskikh Luchey, 1969, pp 118-132.
AIR/FTD/MT-24-11-70

Investigation of Conditions in Interplanetary Space by Cosmic Ray Variations, by L. I. Dorman, I. Vvedeniye.
RUSSIAN, per, Trudy Mezhdunarodnogo Seminara po Izucheniyu Fiz Mezhpplanetnogo Prostranstva s Pomoshch'yu Kosmicheskikh Luchey, 1969, pp 173-187.
AIR/FTD/MT-24-11-70

Meteorological Conditions in the Arctic During the Years of the Quiet Sun.
RUSSIAN, per, Trudy Sovetskoy Antarkticheskoy Ekspeditsiy Glavnoye Upravleniye Gidrometeorologicheskoy Sluzhby, Vol 274, 1968, 143 pp.
*CFSTI TT 70-50100

Some Problems Concerning the Technique of Seeding Supercooled Stratus Clouds for the Purpose of Scattering Them, by S. K. Kydryavtseva, I. P. Polovina. 20 pp.
RUSSIAN, per, Trudy Voprosy Aktivnykh Vozdetstviy na Oblaka i Tumany Kiyev, Ukrainskiy Nauchno-Issled Gidromet Inst, No 74, 1968, pp 18-31.
AIR/FTD/MT-24-50-70

Stratospheric and Mesospheric Circulation by A.L. Kats, 169pp.
RUSSIAN, bk, Tsirkulyatsiya v Stratosfere i Mezofsfere, 1968.
CFSTI TT 69-55110

Scientific
Atmospheric Sciences (Contd)

Hydrochemical, Hydrological and Meteorological Features of the Year with Regard to Black Sea, by A. V. Rozhdenstvensky. 7 pp.
BULGARIAN, per, Ribno Stopanstvo, Vol 16, No 5, 1969, pp 4-6.
Dept of Interior
BCF/OFF
A-37-March 1970 No 16
On Loan

Measurement of the Ignition Delay of Pyrophoric Substances as a Function of the Pressure and Humidity of air, by M. Guinet.
FRENCH, per, La Recherche Aeronautique, No 76, 1960, pp 25-34.
Dept of Navy APL/JHU T-2421

Air Purification or Clean Air.
JAPANESE, per, Koku Seijo, 6 issues per year, 1970, 360 pp.
*CFSTI TT 70-57210

Air Protection, 300 pp.
POLISH, per, Ochrona Powietrza, 1969.
*CFSTI TT 70-55123

Air Protection.
POLISH, per, Ochrona Powietrza, 1970, 300 pp.
*CFSTI TT 70-55124

Behavioral & Social Sciences

Recognition Systems with an Infinite Plane Retina, by A. Kh. Gelig. 19 pp.
RUSSIAN, per, Leningrad. Univ. Kafedra. Vychisl Matematiki i Vychisl Tsentr. Vychisl Tekh i Voprosy Kibernetiki, No 5, 1968, pp 80-94.
AIR/FTD/MT-24-456-69

Application of a Learning Recognition System for the Separation of an Unknown Signal from Noise, by A. Kh. Gelig, V. A. Uakubovich. 7 pp.
RUSSIAN, per, Leningrad. Universitet. Kafedra Vychislitel'noy Matematika i Vychisl'nyy Tsentr Vychislitel'naya Tekhnika i Voprosy Kibernetiki, No 5, 1968, pp 95-100.
AIR/FTD/MT-23-80-70

Scientific
Behavioral & Social Sciences (Contd)

The Scientific Management of Society (Essay of a Systematic Investigation), by V. G. Afanas'yev. 195 pp.
RUSSIAN, bk, Nauchnoye Upravleniye Obshchestvom, 1968, pp 1-6, 98-384.
AIR/FTD/HT-23-94-69

Biological & Medical Sciences

Radiation Hygiene, by F. G. Krotkov, 45 pp.
RUSSIAN, per, Izd-vo(Meditsina), pp 24-73.
Dept of Navy NTC Trans 3044

New and Little-Known Species of Blood-Sucking Midges, (Diptera, Ceratopogonidae) From Kazakhstan, 14pp.
RUSSIAN, per, Akademiya Nauk Kasakhskoi SSR, Trudy Instituta Zoologiy, vol 24, 1966, pp. 65-67.
CFSTI TT 69-55078

Whiteflies (Homoptera, Aleyrodoidea) of the Leningrad Area, by E.M. Dantsig, 10 pp.
RUSSIAN, per, Akademiya Nauk SSSR, Trudy Zoologicheskogo Instituta, vol 31, 1962 pp. 13-21.
CFSTI TT 69-55078

New and Little-Known Psyllids From Kazakhstan. Notes on the System and Classification of Psylloidea (Homoptera), by M.M. Loginova, 64pp.
RUSSIAN, per, Akademiya Nauk SSSR. Trudy Zoologicheskogo Instituta, vol 34, 1964 pp. 52-112.
CFSTI TT 69-55078

Suborder Aleyrodinea - Whiteflies, by E.M. Dantsig, 9 pp.
RUSSIAN, per, Akademiya Nauk SSSR, Trudy Zoologicheskoy Instituta. Part I, no 84 1964, pp. 482-489.
CFSTI TT 69-55078

Scientific
Biological & Medical Sciences (Contd)

New and Little-Known Species of Psyllids (Homoptera, Psylloidea) from the USSR, by M. M. Loginova, 34pp.
RUSSIAN, per, Akademiya Nauk SSSR, Trudy Zoologicheskogo Instituta, vol 37, 1966 pp. 3-35.
CFSTI TT 69-55078

Characteristics of Distribution of Antibiotics in the Organs and Tissues of the Chick Embryo, by T. M. Kokhanovskaya.
RUSSIAN, per, Antibiotiki, Vol 8, No 9, 1963, pp 816-821.
ATS RJ-5506

Prolongation of the Effect of Tetracyclines and Monomycin by Means of Aqueous Polyvinylpyrrolidone Solutions, by V. A. Kochetkova.
RUSSIAN, per, Antibiotiki, Vol 12, No 4, 1967, pp 301-307.
ATS RJ-5501

Development of the Chemistry of Antibiotics in the USSR, by A. S. Khokhlov.
RUSSIAN, per, Antibiotiki, Vol 12, No 11, 1967, pp 999-1012.
ATS RJ-5453

Demonstration, On Bacterial Models, of the Synergistic Action of Antitumor Antibiotics in Combination with Culture Fluids, by Ye. A. Biryukov, RUSSIAN, per, Antibiotiki, Vol 13, 1968, pp 434-436.
ATS RJ-5454

Study of Respiration During the Process of Penicillin Biosynthesis, by M. M. Levitov, et al.
RUSSIAN, per, Antibiotiki, Vol 14, No 6, 1969, pp 496-500.
ATS RJ-54-52

Combined Effect of Nitrous Acid and Streptomycin on Actinomyces rimosus,
RUSSIAN, per, Antibiotiki, Vol 14, No 6, 1969, pp 527-531.
ATS RJ-5500

Principal Means of Regulating Metabolism of Microorganisms During Directed Biosynthesis, by A. M. Bezborodov.
RUSSIAN, per, Antibiotiki, Vol 14, No 8, 1969, pp 771-780.
ATS RJ-5493

Scientific
Biological & Medical Sciences (Contd)

Corpuscular Elements in the Blood of Insects, by K. S. Bogoyavlenskii, 26 pp.
RUSSIAN, per, Arkhiv Anatomi, Gistologiy i Embriologiy, Vol 11, No 2, 1932, pp 361-387.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 64
On Loan

Pathologoanatomical Analysis of the Results of Experimental Reimplantation of the Lung, by I. K. Yesipova, O. I. Kaufman, et al. 11 pp.
RUSSIAN, per, Arkhiv Anat, Vol 30, 1968, pp 29-34.
Dept of Navy/NMS 1468

Morphological Background of Bronchial Spasm Associated with Administration of Proserine, by V. I. Didenko. 12 pp.
RUSSIAN, per, Arkhiv Patologiy, Vol 30, 1968, pp 35-41.
Dept of Navy/NMS 1465

Some Information Regarding Antarctic Seals, by G. A. Solyanick, 6 pp.
RUSSIAN, rpt, Arkicheskiy i Antarkticheskiy Institut Glavnogo Upravleniya Gidrometeorologicheskoy Sluzhby Pri Sovete, 1964, pp 54-59.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 81
On Loan

Echo Location Process in Oryzomys Bats in Free Flight, by G. N. Simkin, 14 pp.
RUSSIAN, per, Biologicheskoye Nauki, Moscow, No 3 (75), 1970, pp 61-71.
JPRS 50665

Certain Problems in Studying the Orientation of Birds, by V. D. Il'ichev, 11 pp.
RUSSIAN, per, Biologicheskoye Nauki, Moscow, No 4, 1970, pp 76-82.
JPRS 50681

Effect of Some Neurotropic Substances on the Development of Experimental Atherosclerosis, by I. K. Shkhvatsabaya.
RUSSIAN, per, Byull Eksp, Biol i Med, Vol 41, 1956, pp 39-42.
ATS RJ-5462

Scientific
Biological & Medical Sciences (Contd)

On the Influence of Temperature on the Intensity of Digestion by Burbot, by O. A. Gomazkov. 7 pp.
RUSSIAN, per, Byulleten Inst Biol Vodokhranilishch, No 5, 1959, pp 26-28.
Dept of Interior
BCF/OFF
A-37-March 1970-No 34
On Loan

A Demonstration of Genetic Transduction in Actinomyces, by S. N. Alikhanyan.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 132, No 5, 1960, pp 1179-1182.
ATS RJ-5498

The Production of Inactive Mutants of Act. rimosus and the Formation of an Antibiotic During Their Mixed Culture, by S. I. Alikhanyan.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 136, No 2, 1961, pp 468-471.
ATS RJ-5502

A New Production of the Metabolism of Actinomyces aureofaciens LS-B-16, by V. G. Plakunova.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 139, No 1, 1961, pp 217-218.
ATS RJ-5497

Synthesis of Polymeric Blood Substitutes with Inhibitor-antioxidant Properties, by S. N. Yshakov.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 143, No 1, 1962, pp 231-234.
ATS RJ-5464

Combination of Pencillins with Water-Soluble Polymers, by S. N. Ushakov, Ye. F. Panarin.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 147, No 5, 1962, pp 1102-1104.
ATS RJ 5465

Revention of Development of Experimental Atherosclerosis by Biotin, by O. K. Dokusova, A. N. Klimov.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 172, No 6, 1967, pp 1454-1456.
ATS RJ-5463

Qualitative Changes on the Composition of Antibiotics as a Result of Chemical Mutagenesis, by L. N. Borisova, et al.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 183, No 6, 1968, pp 1431-1434.
ATS RJ-54-56

Scientific
Biological & Medical Sciences (Contd)

New Photographic Layers of High Resolution and Their Study with the Method of Holographic Resolvometry. 5 pp.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 185, No 3, 1969, pp 552-554.
Dept of Navy/NMS 1491

The Origin of Signals of New Type, Arising in Animal Tissues Under the Influence of a Number of Chemical Agents and Accompanying Necroses, by A. N. Saprin.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 189, No 4, 1969, pp 889-891.
*Dept of Navy APL/JHU J-1507

Structure of the Sucker Mechanism in Representatives of the Cobiidae Family, by O. P. Ovcharov.
RUSSIAN, mono, Ekologo-Morfologo-Yecheskiy Issled Nektonna Zhivotnykh, 1966, pp 89-94.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 49
On Loan

New Species of Biting Midges (Diptera, Heleidae) From the European Part of the USSR, by Kh. Ya. Remm, 8pp.
RUSSIAN, per, Entomologicheskoe Obozrenie vol 44, no 1, 1965, pp. 182-187.
CFSTI TT 69-55078

Experimental Data on the Pharmacology of Salicylanilide, 4',5-dibromosalicylanilide and Sodium Caprylate, by N. N. Prokopovich.
RUSSIAN, per, Farmakol i Toksikol, Vol 26, No 4, 1963, pp 467-73.
AFS RJ-5488

Emergence of Natural Plague Foci with Reference to the History of the Rodent Fauna, by V. V. Kucheruk, 73 pp.
RUSSIAN, per, Fauna i Ekologiya Gryzunov, Moscow, No 7, 1965, pp 5-85.
JRS 50530

Diurnal Rhythm of Functions in Humans During Restricted Mobility, by N. Ye. Panferova. 13 pp.
RUSSIAN, per, Fiziol Zh SSSR, Vol 50, No 6, 1964, pp 741-749.
NASA TT F-12,739

Scientific
Biological & Medical Sciences (Contd)

Problems of Physiological Adaptation and Behavior in Ecologico-Physiological Studies, by A. D. Slonim. 18 pp.
RUSSIAN, per, Fiziol Zhurnal SSSR, Vol 55, No 8, 1969, pp 920-928.
NASA TT F-12,889

Cryptogamic Plants of the USSR, by V. P. Savich, 518pp.
RUSSIAN, bk, Flora Sporovykh Rastenii SSSR, 1957.
CFSTI TT 69-55105

Voice and Speech Therapeutics Relative to Biocybernetics, Part III, by K. Hartlieb.
RUSSIAN, per, Folia Phoniatrica, vol 20, 1968 pp. 43-56.
*NASA TT F-13,013

On the Accuracy of Determining the Production of Chronomids by the Method of Summing Their Daily Growth Increments, by A. S. Konstantinov, S. P. Nechvalenko, 10 pp.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 4, No 6, 1968, pp 77-82.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 65
On Loan

Comparative Characteristics of the Life Cycle and Productivity of Besmina Longirostris O.F. Muller and B. Coregoni Baird in the Kiev Reservoir, by G. A. Zhdanova.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 11-19.
Dept of Interior
BCF/OFF
A-37-March 1970-No 91
On Loan

Vegetation of the Littoral of the Delta of the Severnaya Dvina, by Yu. P. Byallovich.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 20-29.
Dept of Interior
BCF/OFF
A-37-March 1970-No 51
On Loan

Biomass and Reserves of Macrozoobenthos in the Bays of the Northeastern Part of the Black Sea, by N. Yu. Milovideva.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 47-50.
Dept of Interior
BCF/OFF
A-37-March 1970-No 15
On Loan

The Formation of Microphytobenthos in the Dnieprodzerzhinsk Reservoir, by Z. S. Gaukhan.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 47-51.
Dept of Interior
BCF/OFF
A-37-March 1970-No 82
On Loan

The Quantitative Determination of Water Surface Pollution with Bitumoids, by V. Ye. Sinel'nikov, V. A. Mikhaylov.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 51-56.
Dept of Interior
BCF/OFF
A-37-March 1970-No 25
On Loan

Effect of Petroleum Growth Substance on the Photosynthetic Activity and Cell Division Rate of Chaetoceros Curvisetus Cl, by L. N. Zgurovskaya.
RUSSIAN, per, Gidrobiologicheskaya Zhurnal, Vol 5, No 1, 1969, pp 55-59.
Dept of Interior
BCF/OFF
A-37-March 1970-No 14
On Loan

Chironomidae of the Rocky Littoral of Lake Baikal, by I. M. Shapovalova.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 60-63.
Dept of Interior
BCF/OFF
A-37-March 1970-No 42
On Loan

Biology of the Caddis Fly in the Waters of the Far East, by I. M. Levanidova.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 64-67.
Dept of Interior
BCF/OFF
A-37-March 1970-No 41
On Loan

Methods of Fixation of Carbon Dioxide Evolved by Anacystis nidulans.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 67-70.
Dept of Interior
BCF/OFF
A-37-March 1970-No 9
On Loan

Conditions and Prospects for Cultivating Sturgeon Fry in the Volgograd Sturgeon Nursery, by V. P. Baranova, M. P. Miroshnichenko.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 70-74.
Dept of Interior
BCF/OFF
A-37-March 1970-No 106
On Loan

Problems of Excess Algal Growth in Canals, by O. P. Oksiyuk.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 75-81.
Dept of Interior
BCF/OFF
A-37-March 1970-No 1
On Loan

Bathypotometer with Remote-controlled Sensitivity for Estimating the Intensity of a Bioluminescence Field, by Ye. P. Bityukov.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 82-86.
Dept of Interior
BCF/OFF
A-37-March 1970-No 76
On Loan

An Attempt to Utilize Cryptococcus Albidus Miller et al. in Determination of Thiamine (Vitamin B₁) in Sea Water, by A. G. Benzhitskiy, A. T. Suprunov.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 86-89.
Dept of Interior
BCF/OFF
A-37-March 1970-No 7
On Loan

Elementary Fish Populations by N. V. Lebedev, "Pishchavaya Promyshlennost" press, Moscow, 1967 (Book Review), by A. S. Apekin.
RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 91-92.
Dept of Interior
BCF/OFF
A-37-March 1970-No 92
On Loan

Scientific
Biological & Medical Sciences (Contd)

Maximum Permissible Concentration of Hexachloro-cyclopentadiene in Water Reservoirs, by S. Ya. Naishtein, Ye. V. Lisovskaya. RUSSIAN, per, Gigiena i Sanit, Vol 30, No 2, 1965, pp 17-21.
ATS RJ-5479

Sanitizing the Air in the Georgian SSR, by O. P. Shalamberidze, S. E. Partskhalava, 5 pp. RUSSIAN, per, Gigiena i Sanitariya, Moscow, No 4, 1970, pp 96-98.
JPRS 50713

Treatment of Water with Potassium Permanganate to Remove Tastes and Odors, by S. I. Dobrushina, V. I. Tkachenko, 5 pp. RUSSIAN, per, Gigiena i Sanitariya, Moscow, No 4, 1970, pp 99-100.
JPRS 50713

Carcinogenic Properties of o-tolidine and Dianisidine, by G. B. Pliss. RUSSIAN, per, Gigiena Truda i Prof Zabolevaniya, Vol 9, No 7, 1965, pp 18-22.
ATS RJ-5480

Tissue Radioactivity of Inhabitants of Various Regions of the Soviet Union, by L. A. Pertsov, 16 pp. RUSSIAN, per, Gosudarstvennyy Komitet po Ispol'zovaniyu Atomnoy Energii SSR, 1967, pp 1-17.
AEC/ANL-Tr-802-70

Data on the Fauna of Midges (Diptera, Heleidae) of Armenia, with the Description of a New Species, by Sh. M. Dzhararov, 6pp. RUSSIAN, per, Izvestiya Akademii Nauk Armyanskoi SSR. Biologicheskii Nauki vol 13, no 1, 1960, pp. 93-98.
CFSTI TT 69-55078

Systematics of Bloodsucking Midges of the Genus Leptoconops Skuse in Transcaucasia and a Description of New Species, by Sh. M. Dzhararov, 10pp. RUSSIAN, per, Izvestiya Akademii Nauk Azerbaidzhanskoi SSR. Seriya Biologicheskikh i Meditsinskikh Nauk, no 1, 1961 pp. 67-76.
CFSTI TT 69055078

Scientific
Biological & Medical Sciences (Contd)

The Fauna of Bloodsucking Heleidae of the Genus Culicoides Latr. in the Alazan Valley of Azerbaidzhan, by Sh. M. Dzhararov, 5pp. RUSSIAN, per, Izvestiya Akademii Nauk Azerbaidzhanskoi SSR, Seriya Biologicheskikh i Meditsinskikh Nauk no. 2 1961, pp. 73-76.
CFSTI TT 69-55078

Correlation Between Lifespan and Fertility of Various Mammalian Species, by S. A. Severtsova, 25 pp. RUSSIAN, per, Izv Akad Nauk SSSR, 1930, pp 931-950.
AEC/ANL-Tr-818-70

Blue-Green Algae as Producers of Toxic Substances, by S. V. Goryunova. RUSSIAN, per, Izv Akad Nauk SSSR, Seriya Biol, No 5, 1968, pp 683-690.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 1

Significance of V. N. Sukachev's Study on Biogeocenosis for Creating Closed Systems, by V. P. Dadykin, 13 pp. RUSSIAN, per, Izvestiya Akademii Nauk SSSR. Seriya Biologicheskaya, Moscow, No 2, 1970, pp 229-237.
JPRS 50594

About the Antimicrobial Effects of Avitol and Solodil, by B. D. Kharutyunyan. 10 pp. RUSSIAN, per, Izv Sel'skokhozyaystvennykh Nauk, No 4, 1968, pp 99-105.
AIR/FTD/HT-23-671-69

Biologically Active Fibers, by L. A. Vol'f, V. V. Kotetskiy, 8 pp. RUSSIAN, per, Khimicheskiye Volokna, Vol 11, No 1, 1969, pp 16-19.
ARM/FSTC/HT-23-271-70

A Method for Replacing the Proximal End of the Tibia with an Articular Homograft, by A. S. Imamaliyev. 9 pp. RUSSIAN, per, Khirurgiya, Vol 41, No 2, 1965, pp 39-42.
Dept of Navy/NMS 1489

Structural-Mechanical Properties of the Muscular Tissues of Fish and Their Changes of Freezing, by N. K. Fedorova, A. I. Piskarev, 10 pp.
RUSSIAN, per, Kholodil'naya Tekhnika, No 10, 1969, pp 40-46.

Dept of Interior
BCF/OFF
A-36-Feb 1970-No 121
On Loan

Investigation and Development of an Electrosleep Technique at the Psychiatric Clinic Imeni S.S. Korsakov, First Moscow Medical Institute, by V. M. Banshchikov, Ye. I. Kulikova, 5 pp.
RUSSIAN, per, Kliniko-Fiziologicheskiye Issledovaniya po Probleme Elektrosna i Elektroanestezii, Moscow, 1969, pp 19-23.
JPRS 50544

Effect of Some Neurotropic Drugs on the Cholesterolemia of Atherosclerotic Patients, by A. L. Myasnikov.
RUSSIAN, per, Klin Med, Vol 34, No 6, 1956, pp 65-69.
ATS RJ-5461

Manganese in the Seafloor Depositions of the Northern Seas, by T. I. Corshkova.
RUSSIAN, mono, Margantsevye Mestorozhdeniya SSSR, Akad Nauk SSSR, Inst Geologiy Rufnykh Mestorozhdeniy, Petrografiya Mineralogiy i Geokhimiya, 1967, pp 117-134.

Dept of Interior
BCF/OFF
A-37-March 1970-No 40
On Loan

Reasons for Recurrences of Malarial Infections in Man and Monkeys, by A. Corradetti. 12 pp.
RUSSIAN, per, Med Parazit, Vol 34, 1965, pp 673-677.
Dept of Navy/NMS 1519

Synthesis of 5-Fluorouracil, by I. Kh. Fel'dman.
RUSSIAN, per, Med Prom SSSR, Vol 19, No 3, 1965, pp 12-13.
ATS RJ-5468

Synthesis of Tersavid, by N. A. Mukhina.
RUSSIAN, per, Med Prom SSSR, Vol 19, No 7, 1965, pp 9-11.
ATS RJ-5467

Oligodynamic Action of Chemically Pure Metallic Silver, by A. I. Klochkov, L. A. Kunina.
RUSSIAN, per, Mikrobiologiya, Vol 29, No 3, 1960, pp 428-432.
ATS RJ-5491

Formation of Lipids by Mycobacteria Utilizing n-hexadecane and Glucose, by T. V. Koromelli.
RUSSIAN, per, Mikrobiologiya, Vol 37, No 7, 1968, pp 984-987.
ATS RJ-5460

The Effect of Radiomimetic Substance (2,2'-Dichloro-N-Methyldiethylamine) on the Biosynthesis of Fats and Steroids by Yeast Organisms, by G. A. Larikova, R. D. Gal'tsova.
RUSSIAN, per, Mikrobiologiya, Vol 37, No 6, 1968, pp 1030-1034.
ATS RJ-5459

The Content of Phosphorous Nucleic Acids and Pentoses in the Mycelium of Actinomyces Fradiae 129, by I. P. Makarova.
RUSSIAN, per, Mikrobiologiya, Vol 38, No 1, 1969, pp 52-57.
ATS RJ-5499

The Effect of Vegetable and Whale Oils on Mycelium Growth and Oleandomycin Production by Actinomyces antibioticus, by Ye. I. Surikova, M. V. Kalinina.
RUSSIAN, per, Mikrobiologiya, Vol 38, No 1, 1969, pp 152-158.
ATS RJ-5458

Health Regulations in the Design of Nuclear Power Stations.
RUSSIAN, rpt, Min. Zdavookhraneniya SSSR, Moscow, 1969, 27 pp.
C.E. Trans 5289

The Initial Period of Postnatal Growth in the Harp Seal, by K. K. Chapskiy, 43 pp.
RUSSIAN, rpt, Morskiye Mlekopitayushchie, Akademiya Nauk SSSR, 1964, pp 138-157.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 80
On Loan

Distribution of Baleen Whales in the Southern Hemisphere, by V. A. Zemskiy.
RUSSIAN, bk, Morskiye Mlekopitayushchiye, 1965, pp 20-26.
Dept of Navy NOO Trans 470

Scientific
Biological & Medical Sciences (Contd)

Distribution of Sperm Whales in the Northern Sector of Kurile Islands in 1959-1961, by M. N. Tarasevich.
RUSSIAN, bk, Morskiye Mlekopitayushchiye, 1965, pp 38-42.
Dept of Navy NOO Trans 471

Population Dynamics of Belugas in Kandalakshskiy Zaliv, by V. B. Biyanki.
RUSSIAN, bk, Morskiy Mlekopitayushchiye, 1965, pp 70-72.
Dept of Navy NOO Trans 472

Distribution of Beluga in the European North, by Yu. I. Nazarenko.
RUSSIAN, bk, Morskiye Mlekopitayushchiye, 1965, pp 73-75.
Dept of Navy NOO Trans 473

The Distribution of Ribbon Seal, by A. P. Shustov.
RUSSIAN, bk, Morskiye Mlekopitayushchiye, 1965, pp 118-121.
Dept of Navy NOO Trans 474

Some Data Concerning the Newfoundland Population of Greenland Seals, by L. A. Popov, Ya. K. Timoshenko.
RUSSIAN, bk, Morskiye Mlekopitayushchiye, 1965, pp 158-170.
NAV/NOO/Tran-475-70

The Fauna of Meromyza Mg. (Diptera, Chloropidae) in the USSR, by L. I. Fedoseeva, 6pp.
RUSSIAN, per, Nauchny Doklady Vysshei Shkoly, Biologicheskie Nauki, no 4, 1960, pp. 46-51.
CFSTI TT 69-55078

Key to Heterobasidiomycetidae of the USSR, by A. G. Raitviir, 93pp.
RUSSIAN, bk, Opredeliteli' heterobazidial nykh Gribov (Heterobasidiomycetidae) SSSR, 1967
CFSTI TT 69-55093

Suborder Psyllinea - Jumping Plant Lice, by M.M. Loginova, 59pp.
RUSSIAN, per, Opredeliteli po Faune SSSR Akademiya nauk SSSR, Trudy Zoologicheskogo Instituta, Part I, No. 84, 1964, pp. 437-482.
CFSTI TT 69-55078

Scientific
Biological & Medical Sciences (Contd)

Sense Organs of the Lateral Line Systems and Their Significance in the Behavior of Fishes, by N. N. Disler.
RUSSIAN, bk, Organy Chuvstv Sistemy Bokovoy Liniy i ikh Znachenije v Povedenii Ryb, 1960, 310 pp.
*CFSTI TT 70-54021

Specificity of Eurytrema Pancreaticum (Jansen, 1889) (Trematoda: Dicrocoeliidae) to Their Intermediate Hosts, Terrestrial Mollusks, by V. I. Panin, G. K. Ksembayeva. 10 pp.
RUSSIAN, per, Parazitologiya, Vol 1, 1967, pp 222-226.
Dept of Navy/NMS 1505

Plankton and Benthos of Inland Waters, by B.K. Shtegman, 391 pp.
RUSSIAN, bk, Plankton i Bentos Vnutrennikh Vodoemov, 1966.
CFSTI TT 69-55034

Biosynthesis of Proteolytic Enzymes in Some Antibiotic-production Actinomycetes, by A. N. Meshkov.
RUSSIAN, per, Prikl Biokhim Mikrobiol, Vol 5, No 2, 1969, pp 227-230.
ATS RJ-5495

The Behavior of Dolphins in Captivity, by V. M. Bel'kovich, N. L. Krushinskaya, 22 pp.
RUSSIAN, per, Priroda, Moscow, Nov 1969, pp 18-28.
JPRS 50701

Plant-Ocean-Fish, by Yu. Yu. Marti.
RUSSIAN, per, Priroda, No 2, 1970, pp 30-36.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 140

The Efficacy of Specific Gamma Globulins in Burn Therapy, by G. A. Guseinov.
RUSSIAN, per, Probl Gematol o Pereliv, Vol 9, No 4, 1964, pp 42-43.
ATS RJ-5485

Experience in the Treatment of Radiation Leukopenia with the Method of Bone Marrow Autografts, by A. A. Gabelov, M. A. Koiro, et al. 7 pp.
RUSSIAN, per, Probl Gematol, Vol 11, 1966, pp 41-44.
Dept of Navy/NMS 1516

Use of Cadaver Bone Marrow in the Treatment of Radiation Injuries, by N. V. Butomo. 12 pp.
RUSSIAN, per, Probl Gematol, Vol 11, 1966, pp 54-59.
Dept of Navy/NMS 1501

Scientific
Biological & Medical Sciences (Contd)

The Problem of Viability and Length of Preservation of Cadaver Bone Marrow, by N. I. Fedorov. 7 pp.
RUSSIAN, per, Probl Gamat, Vol 11, 1966, pp 60-63.
Dept of Navy/NMS 1506

Fleas: Do They Suffer From Plague, by K. I. Kondraskina, 17 pp.
RUSSIAN, per, Problemy Osobo Opasnykh Infektsiy, No 5, 1969, pp 212-222.
ACSI J-8176
ID 2204005770

Production and Circulation of Organic Matter in Inland Waters, by B.K. Shtegman, 287 pp.
RUSSIAN, bk, Produtsirovanie i Krugovorot Organicheskogo Veshchestva vo Vnutrennikh Vodoemakh, 1966
CFSTI TT 69-55032

Origin and Evolution of Parasitism in Hymenoptera Parasitica and Development of their Fauna in the USSR, by N. A. Telenga, 112pp.
RUSSIAN, bk, Proiskhozhdenie i evolyutsiya Parazitizma u Nasekomykh-Naezdnikov i Formirovanie ikh Fauny v SSSR, 1952.
CFSTI TT 69-55074

Theoretical Basis of the Exploitation of a Fish Stock, by Ye. D. Karakotskiy, 10 pp.
RUSSIAN, per, Rybnoe Khoz., Vol 44, No 7, 1968, pp 22-25.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 34
On Loan

Some Physical Characteristics of Fishmeal Which is Conveyed Pneumatically, by I. G. Shif, 5 pp.
RUSSIAN, per, Rybnoe Khoz., Vol 45, No 9, 1969, pp 68-70.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 32
On Loan

Application of a Hydraulic Fish-protecting Device, by O. B. Tikhomirov.
RUSSIAN, per, Rybnoe Khoz., Vol 45, No 10, 1969, pp 14-16.
Dept of Interior
BCF/OFF
A-37-March 1970-No 87
On Loan

Scientific
Biological & Medical Sciences (Contd)

Purse Seining for Mackerel, by Yu. P. Smirnov.
RUSSIAN, per, Rybnoe Khoz., Vol 45, No 10, 1969, pp 41-44.
Dept of Interior
BCF/OFF
A-37-March 1970-No 95
On Loan

Technochemical Properties of Teleost Fishes in the Indian Ocean, by G. K. Koval'chuk, 6 pp.
RUSSIAN, per, Rybnoe Khoz., Vol 45, No 10, 1969, pp 66-69.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 123
On Loan

Characteristics of Biological Noise Propagation in Shallow Water Regions of the Black Sea, by Ye. V. Shishkova, 8 pp.
RUSSIAN, per, Rybnoye Khozyaystvo, Moscow, No 9, pp 37-39; No 10, pp 37-38.
JPRS 50691

Fish Behavior, by V. Protasov, 10 pp.
RUSSIAN, per, Rybovodstvo i Rybolovstvo, Moscow, No 2, Mar-Apr 1970, pp 22-25.
JPRS 50597

The Genus *Dasyhelea* Kieffer (Diptera, Heleidae) in Estonia, by Kh. Ya. Remm, 22pp.
RUSSIAN, per, Tartu Riikliku Ulikodi Teimetised VIHK 120 (Zoologia - Alaseia Toid II) 1962, pp. 108-131.
CFSTI TT 55078

Biting Midges (Diptera, Heleidae) of Lithuania, by Kh. Ya. Remm, 18 pp.
RUSSIAN, bk, Tartu Riikliku Ulikooli Teimetised, 180, 1966, pp. 53-71.
CFSTI TT 69-55078

Fish Curing and Processing, by V. Zaitsev. et al.
RUSSIAN, bk, Tekhnologiya Rybnykh Produktov, 1965, 722 pp.
Dept of Interior
BCF/OFF
A-37-March 1970-No 117
On Loan

Toxicological Characteristics of Methylopyrrolidinone
by K. P. Stasenkova, T. A. Kochetkova.
RUSSIAN, per, Toksikol Novykh Prom Khim Veshch,
No 7, 1965, pp 27-38.
ATS RJ-5477

Plankton and Benthos of Inland Waters, by
B. K. Shtegman.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 77
On Loan

Some Future Problems of Hydrobiology, by
B. S. Kuzin.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 3-9.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 60
On Loan

Distribution of Benthos in the Volga Reach of the
Rynsk Reservoir, by V. I. Mitropolskiy,
V. P. Luferov.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 10-14.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 107
On Loan

Brief Comparative Description of the Epifauna in
the Flooded Forests of the Volga Reservoirs, by
V. P. Luferov.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 16-20.
Dept of Interior/BCF/OFF
A-36-Feb 1970-No 103
On Loan

Bottom Fauna of the Cherepovets Reservoir in the
First Two Years of its Existence, by
T. L. Poddubnaya.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 21-33.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 110
On Loan

Zooplankton of the Water Bodies of the White Nile
and its Floodplain in the Republic of Sudan, by
A. V. Monakov.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 34-39.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 120
On Loan

Zooplankton of the Rybinsk Reservoir in 1956-1963,
by L. A. Luferova, A. V. Monakov.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 40-55.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 106

Horizontal Distribution of Zooplankton in the
Rybinsk Reservoir From Data of Simultaneous Surveys,
by A. V. Monakov, L. M. Semenova.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 56-67.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 108
On Loan

Formation of the Zooplankton of the Cherepovets
Reservoir, by L. A. Luferova.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 68-74.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 104
On Loan

Use of Radioactive Carbon for the Study of the
Nutrition and Food Relationship of Aquatic
Animals, by Yu. I. Sorokin.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta
Biologii Vnutrennikh Vod, Vol 12, No 15, 1966,
pp 75-119.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 13
On Loan

Taxonomy of Chaetogaster Diaphanus Gruith, by
T. L. Poddubnaya.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 120-124.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 75
On Loan

Observations on the Life Cycle of *Sphaerium*
Corneum L., by V. I. Mitropol'skiy.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 125-128.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 88
On Loan

Mechanism of Filtration and Feeding of *Spaeriids*,
by V. I. Mitropol'skiy.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 129-133.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 89
On Loan

Rate of Filtration of Water by *Dreissena*, by
V. P. Mikheyev.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 134-138.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 87
On Loan

Littoral Cladocera of the Cherepovets Reservoir,
by N. N. Smirnov.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 145-150.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 23
On Loan

Contribution to the Taxonomy of *Evodne Anonyx*
Sars, by I. K. Riv'er.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 151-158.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 21
On Loan

Data on the Biology of Caspian Polyphemidae, by
I. K. Riv'er, F. O. Mordukhai-Boltovskoy.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 159-169.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 22
On Loan

Feeding of *Polyphemus Pediculus*, by L. G. Butorina,
Yu. I. Sorokin.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 170-174.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 73
On Loan

Observations on Oogenesis of Some Cladocera, by
A. V. Makrushin.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 175-182.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 20
On Loan

New Species of Water Mite From Genus *Hydrachna*
Mull., its Taxonomy and Biology, by
B. A. Vainshtein.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 183-191.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 93
On Loan

Data on the Biology and Taxonomy of Water Mites,
by B. A. Vainshtein.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 192-198.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 94
On Loan

Development of *Cricotopus Silvestris*, by
R. A. Rodova.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 199-213.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 69
On Loan

A Contribution to the Taxonomy of "*Cryptochironomus*
ex gr Defectus Kieff", by A. I. Shilova.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 214-238.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 70
On Loan

Larva of *Odontomesa Pulva* Kieff, by A. I. Shilova.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 239-250.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 71
On Loan

Rise of Chironomidae Larvae to the Surface of the
Water Depending on the Illumination, by
V. P. Luferov.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 254-257.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 67
On Loan

Role of Light in the Distribution of Chironomidae
Larvae in the Lakes of Karelia, by V. P. Luferov.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 255-272.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 68
On Loan

Influence of Illumination and Temperature on the
Photoreaction of Larvae of *Cricotopus ex gr*, by
V. P. Luferov.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 273-285.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 74
On Loan

Structure of Intestine and Salivary Glands of
Chironomid Larvae, by T. N. Kurazhkovskaya.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 286-296.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 66
On Loan

Glands of the Larvae of Caddis Flies. Report III.
Silk Glands, by S. N. Zarochnaya.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 297-303.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 72
On Loan

Seasonal Changes in the Features of the Water Masses
and Their Distribution in the Rybinsk Reservoir,
by N. V. Butorin.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 311-319.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 99
On Loan

Vertical Heterogeneity in the Water Masses of the
Rybinsk Reservoir, by N. V. Butorin.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 320-331.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 100
On Loan

Interdependance of Microbiological Processes of the
Sulfur and Carbon Cycles in the Meromictic Lake
Belovod, by Yu. I. Sorokin.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 332-355.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 78
On Loan

Toward the Fauna of Ostracoda in Rybinsk Reservoir,
by L. A. Luferova, 9 pp.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 17, No 20, 1968, pp 76-81.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 105
On Loan

Nutritive Rations and Food Coefficients of Predatory
Fishes in Rybinsk Reservoir, by M. N. Ivanova, 27 pp.

RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 17, No 20, 1968, pp 180-198.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 102
On Loan

Larval Stages of Some Protomyxophora and Electrons
Species, by T. A. Pertseva-Ostroumova.

RUSSIAN, per, Trudy Ak Nauk SSSR, Inst Okean, No 84,
1967, pp 222-237.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 25
On Loan

Scientific
Biological & Medical Sciences (Contd)

Main Commerical Fishes of the Shelf Waters of Brazil and Argentina, by Ye. S. Prosvironov, G. D. Vasil'yev.
RUSSIAN, per, Trudy AtlantNIRO, 1969, pp 75-108.
Dept of Interior
BCF/OFF
A-37-March 1970-No 105
On Loan

Experimental Reciprocal Crossing of Contrasting Varieties of Chickens, by Kh. F. Kushner. B. Knizhe.
RUSSIAN, per, Trudy Inst Genet Ak Nauk SSSR, No 27, 1960, pp 154-173.
ATS RJ-5505

Fluctuations in the Number of Whales of the Chukchi Sea in Various Years, by M. M. Sleptsov.
RUSSIAN, per, Trudy Instituta Morfologiy Zhivotnykh, Vol 34, 1961, pp 54-64.
Dept of Navy NOO Trans 478

Distribution of Feeding Grounds and Cetaceans in the Sea of Okhotsk, by M. M. Sleptsov.
RUSSIAN, per, Trudy Instituta Morfologiy Zhivotnykh, Vol 34, 1961, pp 79-92.
Dept of Navy NOO Trans 479

Observations of Small Cetaceans in Far Eastern Seas and NW Pacific, by M. M. Sleptsov.
RUSSIAN, per, Trudy Instituta Morfologiy Zhivotnykh, Vol 34, 1961, pp 136-143.
Dept of Navy NOO Trans 482

Algae of the Litoral of West Coast of Sakhalin, by T. F. Shchapova, V. B. Vozzhinskaya, 32 pp.
RUSSIAN, per, Trudy Instituta Okeanologiy, Ak Nauk SSSR, No 34, 1960, pp 123-146.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 2
On Loan

Quantitative Distribution of Benthic Macrofauna in the Black Sea, by V. N. Nikitin, 59 pp.
RUSSIAN, per, Trudy Instituta Okeanologiy, Vol LXIX, 1964, pp 285-329.
NAV/NOO/Tran-461-69

Scientific
Biological & Medical Sciences (Contd)

Modification of Organic Medicinal Compounds by Incorporation Them in the Structure of High-Molecular Synthetic Polymers, Functioning as Blood Substitutes, by S. N. Ushakov.
RUSSIAN, per, Trudy Leningrad Tekhnol Inst im Lenseveta, No 45, 1958, pp 132-143.
ATS RJ-5466

On the Problem of the Formation of the Commercial Stock of Atlanto-Scandian Herring (From Observations on the Very Abundant Year-Classes of 1950), by Yu. K. Benko, 26 pp.
RUSSIAN, per, Trudy PINRO, No 17, 1966, pp 69-86.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 51
On Loan

On the Population of Atlanto-Scandian Herring of the 1950 and 1951 Year-Classes with Slow Growth Rate, by M. M. Vykhristiuk, 10 pp.
RUSSIAN, per, Trudy PINRO, No 17, 1966, pp 87-98.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 57
On Loan

Peculiarities of the 1950 and 1951 Year-Classes Recruitment to the Spawning Stock of Atlanto-Scandian Herring, by L. P. Telkova, 18 pp.
RUSSIAN, per, Trudy PINRO, No 17, 1966, pp 99-111.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 56
On Loan

Pinnipeds of the North Pacific, 282 pp.
RUSSIAN, per, Trudy VNIRO, vol 62, 1963.
*CFSTI TT 70-54020

Visual Observations on Antarctic Krill Made on Board the Factory Research Ship "Academik Knipovich", by K. V. Shust.
RUSSIAN, per, Trudy VNIRO, Vol 66, 1969, pp 223-230.
Dept of Interior
BCF/OFF
A-37-March 1970-No 49
On Loan

Scientific
Biological & Medical Sciences (Contd)

Experimental Fishing for Krill in the Scotia Sea,
by M. Ya. Groisman.
RUSSIAN, per, Trudy VNIRO, Vol 66, 1969, pp 276-
283.

Dept of Interior
BCF/OFF
A-37-March 1970-No 45
On Loan

Experimental Fishing for Antarctic Krill by the
Medium Size Fishing Trawlers, by T. M. Tupolev.
RUSSIAN, per, Trudy VNIRO, Vol 66, 1969,
pp 284-294.

Dept of Interior
BCF/OFF
A-37-March 1970-No 50
On Loan

Technochemical Characteristics of Krill, by
M. I. Kryuchkova, O. Ye. Makarov.
RUSSIAN, per, Trudy VNIRO, Vol 66, 1969,
pp 295-298.

Dept of Interior
BCF/OFF
A-37-March 1970-No 46
On Loan

Biology of the Pelagic Gadoid Fish Micromesistius
australis Norman, by D. A. Shubnikov, et al.
RUSSIAN, per, Trudy VNIRO, Vol 66, 1969,
pp 299-306.

Dept of Interior
BCF/OFF
A-37-March 1970-No 38
On Loan

Experimental Poutassou Fishing in the Scotia Sea
from the Research Factory Ship "Akademik Knipovich",
by V. N. Basalayev, A. G. Petukhov.
RUSSIAN, per, Trudy VNIRO, Vol 66, 1969, pp 307-
310.

Dept of Interior
BCF/OFF
A-37-March 1970-No 37
On Loan

Medical Service, by V. S. Anichkina, 8 pp.
RUSSIAN, per, USA: Economics, Politics, Ideology,
Moscow, No 4, Apr 1970, pp 115-120.
JPRS 50637

Scientific
Biological & Medical Sciences (Contd)

Automatism and Reflex in the Activity of the
Respiratory Center in Vertebrates, by
R. D. Kravchinskiy. 67 pp.
RUSSIAN, per, Uspekhi Sovremennoy Biologii, Vol 19,
No 1, 1945, pp 291-315.

Dept of Interior
BCF/OFF
A-37-March 1970-No 63
On Loan

Frozen Bone Marrow Autografts in Surgical and
Radiation Therapy of Lung Cancer, by
P. P. Kovalenko, A. R. Rakhmatullayev. 8 pp.
RUSSIAN, per, Vestnik Khir Grekov, Vol 101,
1968, pp 52-55.
Dept of Navy/NMS 1511

Ultraviolet Irradiation of Livestock and Chickens
in Commerical Farming, by A. N. Melyukov.
RUSSIAN, per, Veterinariya, Vol 37, No 2, 1960,
pp 67-69.
ATS RJ-5508

Characteristics of the Behavior and Structure of
males of the Sand Goby, during Spawning and Pro-
tection of Eggs, by Ye. N. Dmitryeva.
RUSSIAN, per, Voprosy Ikhtiologii, Vol 6, No 4,
1966, pp 685-695.
Dept of Interior
BCF/OFF
A-37-March 1970-No 39
On Loan

Distribution and Migration in the Ocean of a Local
Stock of Sockeye Salmon, by I. B. Birman,
S. M. Konovalov, 12 pp.
RUSSIAN, per, Voprosy Ikhtiologii, Vol 8, No 4(51),
1968, pp 728-736.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 112
On Loan

Penetration of the Kuban Pike-Perch into the
Eastern Part of the Black Sea and the Caucasian
Shores, by Ye. N. Drapkin.
RUSSIAN, per, Voprosy Ikhtiologii, Vol 8, No 4,
1968, pp 749-751.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 96
On Loan

Spawning of the Alaska Pollock in the Northeastern Bering Sea, by I. I. Serobaba, 14 pp.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 8, No 6(53), 1968, pp 992-1003.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 98
On Loan

Control of Pollution in the Southern Seas and Tasks for Biological Fisheries Research.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 3-6.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 31
On Loan

Parallel Intraspecific Variation in Fishes, by G. V. Nikol'skiy.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 7-13.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 38
On Loan

Polymorphism Among Whitefishes, its Biological Significance and Economic Importance, by P. A. Dryagin, P. L. Pirozhnikov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 14-25.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 136
On Loan

Homologous Variation in Char Species of the Genera *Salvelinus* Richardson and *Cristivomer* Gill and Jordan by K. A. Savvayitova.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 26-45.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 129
On Loan

Different Forms of Vobla, Bream, and Carp in the Arakum Waters of Dagestan, by M. M. Shikhshabekov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 46-50.
Dept of Interior
A-36-Feb 1970-No 20
On Loan

The Cobitis of the Don and Volga, by M. Bacescu, R. Mayier.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 51-60.
Dept of Interior
A-36-Feb 1970-No 42
On Loan

Optimum Relationship Between Artificial and Natural Reproduction for Commercial Populations of Fishes, by A. P. Shapiro, V. L. Andreyev.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 61-67.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 39
On Loan

Biological Basis for Rational Exploitation of the Stocks of eel in the Gulf of Kurshyu Mares in Connection with Increased Catches, by K. S. Gayalas.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 68-79.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 29
On Loan

Fecundity of Pacific Salmon, by V. N. Ivankov, V. L. Andreyev.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 80-89.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 114
On Loan

Variation in Reproduction of the Brean Population in the Kubyshev Reservoir, by Ye. P. Tsyplakov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1, 1969, pp 90-101.
Dept of Interior
BCF/OFF
A-37-March 1970-No 88
On Loan

Distribution of Eggs and Larvae of the Anchovy and Horse Mackerel in the Danube Region of the North-west: Part of the Black Sea.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 102-106.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 37
On Loan

Scientific
Biological & Medical Sciences (Contd)

Scientific
Biological & Medical Sciences (Contd)

Development and Hardiness of Carp Larvae After Exposure to Naphthenic Growth Substance, by V. I. Vladimirov.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 107-115.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 15

On Loan

Reaction to Light in Some Freshwater Fishes in the Course of Early Development and in Altered Physiological States, by I. I. Girsu.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 172-183.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 43

On Loan

The Hatching Process in the Pike, by

N. V. Kotlyarevskaya.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 116-128.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 95

On Loan

The Spawning and Spawning Grounds of Spicara

Smaris, by L. P. Salekhova.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 184-187.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 79

On Loan

Weight Increase of Carp in Nurseries in Relation to Rearing Conditions, by L. A. Korneyeva.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 129-137.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 44

On Loan

Descent of Young Sturgeon in the River Terek, by M. I. Amirkhanov.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 188-191.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 118

On Loan

Experimental Study of the Feeding of Young Silver

Carp, by D. A. Panov, Yu. I. Sorokin.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 138-152.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 46

On Loan

Comparative Histological Study of the Intestine in Some Salmonids, by N. Ye. Vasil'yeva, V. M. Korovina.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 191-196.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 14

On Loan

Change in Nucleic Acid Contents of Organs and Tissues of *Oncorhynchus Gorbusha* at Different

Stages of its Spawning Migration, by G. D. Berdyshev S. I. Baranova.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 153-162.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 111

On Loan

Population Composition, Dendity and Distribution of Sturgeon in the Volgograd Reservoir, by

Yu. K. Khazov, N. K. Burenina.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 196-199.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 119

On Loan

Blood Serum Proteins of Salmon Fishes, by

G. G. Nivikov, Yu. S. Reshetnikov.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 163-171.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 9

On Loan

Review of "Methods for Assessment of Fish Production in Fresh Waters, by M. V. Mina, G. V. Nikol'skiy.

RUSSIAN, per, Voprosy Ikhtiologii, Vol 9, No 1(54), 1969, pp 200-202.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 45

On Loan

Scientific
Biological & Medical Sciences (Contd)

Review of "Patterns in the Development of Hybrid Fishes From Different Systematic Groups", by N. I. Nikoliukin.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 203-205.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 12
On Loan

Review of "Underwater Guidposts", by G. V. Iurevich
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 1(54), 1969, pp 205-205.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 113
On Loan

Revision of the Species of Decapterus found in the Indian Ocean, by V. V. Nekrasov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 211-220.
Dept of Interior
BCF/OFF
A-37-March 1970-No 108
On Loan

New Data on the Biology of Freshwater Lampreys in White Russia, by P. I. Zhukov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 240-246.
Dept of Interior
BCF/OFF
A-37-March 1970-No 35
On Loan

Numerical Relationships Between Year Classes and Parent Stocks of Fishes and the Effects of Commercial Fishing on Stock Reproduction, by Yu. Ye. Lapin.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 247-259.
Dept of Interior
BCF/OFF
A-37-March 1970-No 94
On Loan

Development of the Reproductive System in Female Broad Whitefish reared in Ponds and Lakes of Northwest USSR, by A. N. Kuz'min.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 260-269.
Dept of Interior
BCF/OFF
A-37-March 1970-No 83
On Loan

Scientific
Biological & Medical Sciences (Contd)

Spawning of the Alaskan Pollack in the Waters of the West Coast of Kamchatka, by L. M. Zver'kova.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 270-275.
Dept of Interior
BCF/OFF
A-37-March 1970-No 81
On Loan

Sex Maturation and Spawning of the Peled in Lake Lokhovo, by B. O. Bergel'sin, Yu. I. Nikanorov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 276-284.
Dept of Interior
BCF/OFF
A-37-March 1970-No 33
On Loan

The Natural Reproduction of the Autumn Chum Salmon, on Sakhalin, by F. N. Rukhlov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 285-291.
Dept of Interior
BCF/OFF
A-37-March 1970-No 98
On Loan

Feeding of Larvae of the Anchovy, by L. A. Duka.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2 (55), 1969, pp 292-301.
Dept of Interior
BCF/OFF
A-37-March 1970-No 2
On Loan

Nutrition of Acipenseridae in the Volgograd Reservoir, by L. P. Zakova.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 302-309.
Dept of Interior
BCF/OFF
A-37-March 1970-No 90
On Loan

Entrapment of Fish Fingerlings in Pumping Installations as Related to Features of Their Behavior and Orientation in the Stream of Water, by D. S. Pavlov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2 (55), 1969, pp 310-317.
Dept of Interior
BCF/OFF
A-37-March 1970-No 3
On Loan

Scientific
Biological & Medical Sciences (Contd)

Seasonal Migrations of the Black Sea Roach or Taran' in the Littoral Zone of the Azov Sea, by T. M. Avedikova.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 318-323.
Dept of Interior
BCF/OFF
A-37-March 1970-No 28
On Loan

Radioecology of Freshwater Fishes, by A. I. Il'yenko.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No2, 1969, pp 324-337.
Dept of Interior
BCF/OFF
A-37-March 1970-No 22
On Loan

Uptake of Strontium-90 and Yttrium-90 from Water by Breeding Loach, and the Effect of Radioactivity on the Progeny, by I. A. Shekhanova.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 338-349.
Dept of Interior
BCF/OFF
A-37-March 1970-No 24
On Loan

100th Anniversary of Sturgeon Farming, by V. V. Mil'shteyn.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 350-352.
Dept of Interior
BCF/OFF
A-37-March 1970-No 107
On Loan

Ichthyological Terminology Used in Relation to the Fishing Industry, by K. G. Konstantinov.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 352-358.
Dept of Interior
BCF/OFF
A-37-March 1970-No 119
On Loan

Reproduction of the Black-Back Herring in the Volgograd Reservoir, by R. Kh. Mamulyan.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 362-366.
Dept of Interior
BCF/OFF
A-37-March 1970-No 84
On Loan

Scientific
Biological & Medical Sciences (Contd)

Erythrocyte Antigens of Atlantic Anchovies on the West Coast of Africa, by V. V. Limanskiy.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2 (55), 1969, pp 366-369.
Dept of Interior
BCF/OFF
A-37-March 1970-No 12
On Loan

Development of Group Effects During Ontogenetic Development of the Baltic Salmon and the Sevan Trout, by G. A. Malyukina, V. V. Konchin.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2, 1969, pp 373-378.
Dept of Interior
BCF/OFF
A-37-March 1970-No 30
On Loan

Review of "Toxicology of Fishes" by V. I. Luk'-yanenko, by L. S. Berdichevskiy.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 2 (55), 1969, pp 380-382.
Dept of Interior
BCF/OFF
A-37-March 1970-No 8
On Loan

New Data on Species Composition and Distribution of Fishes in the Scotia Sea, Antarctica, by Yu. Ye. Permitin.
RUSSIAN, per, Voprosy Ikhtiologiy, Vol 9, No 3, 1969, pp 221-239.
Dept of Interior
BCF/OFF
A-37-March 1970-No 101
On Loan

Functional Disorders in Humans During Hypokinesia, by L. I. Kakurin, B. S. Katkovskiy, 8 pp.
RUSSIAN, per, Voprosy Kurortologii i Lechebnoy Fizicheskoy Kul'tury, Moscow, No 1, 1970, pp 19-24.
JPRS 50595

Phosphate Content in the Blood of Chick Embryos Under Normal Conditions and After Insulin Administration, by L. G. Leibson.
RUSSIAN, per, Vopr Med Khim, Vol 9, 1963, pp 373-380.
ATS RJ-5507

Study of the Radioprotective Effect of a Polymer Salt of Cystamine and a Tropenesulfonate Ester of Dextran, by M. N. Trushina, K. K. Khomyakov, 5 pp.
RUSSIAN, per, Voprosy Meditsinskoy Khimii, Moscow, No 2, 1970, pp 195-198.
JPRS 50524

Scientific
Biological & Medical Sciences (Contd)

Special Features of Hepatic Regeneration in Mice in the Course of Experimental Carcinogenesis, by V. I. Gel'shteyn.

RUSSIAN, per, Vopr Onkol, Vol 9, No 4, 1963, pp 61-68.

ATS RJ-5481

Effect of Propyl Gallate as Antioxidant on the Nutritional Value of Fat, by N. D. Bukhman.

RUSSIAN, per, Vop Pitaniya, Vol 21, 1962, pp 68-72.

ATS RJ-5476

Effect of Foods Pasteurized by Gamma Radiation on White Rats, by Yu. I. Shillinger, 10 pp. RUSSIAN, per, Vop Pitaniya, Vol 26, No 3, 1967, pp 72-78.

AEC/ORNL-Tr-2307-70

The Toxicology of Nitropropane, by Yu. P. Sanina.

RUSSIAN, per, Vopr Prom Toksikol Inst Gigiyeny Truda i Profzabolevaniy Ak Med Nauk SSSR, 1960, pp 239-249.

ATS RJ-5478

Bone Marrow Preservation, by S. S. Lavrik. 14 pp.

RUSSIAN, per, Vrach Delo, Vol 6, 1965, pp 11-17. Dept of Navy/NMS 1598

Smut Damage, by K. Y. Kalashnikov.

RUSSIAN, per, Zashchita Rasteniy, No 2, 1968, pp 4-5.

*ACSI J-8343

*FSTC-HT-23-968-70

Antihistaminic Activity of Carboline Derivatives, by Ye. V. Vinogradova.

RUSSIAN, per, Zdravookhr Beloruss, No 9, 1963, pp 38-41.

ATS RJ-5487

The Content of Glucocorticoids in Plasma of Fishes From the Black Sea, by V. A. Chuiko, 5 pp.

RUSSIAN, per, Zhurnal Evolyutsionnoi Biokhimi i Fiziologii, Vol 4, No 4, 1968, pp 384-386.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 8

On Loan

Scientific
Biological & Medical Sciences (Contd)

Problems of Gamma Globulin Manufacture Associated with the Risk of Infectious Hepatitis, by L. I. Kolesnikova.

RUSSIAN, per, Zh Mikrobiol, Epidemiol, i Immunobiol, Vol 40, No 3, 1963, pp 91-95.

ATS RJ-5483

A Model of Species Abundance Dynamics and the Problem of the Coexistence of Closely Related Species, by A. D. Nazykin.

RUSSIAN, per, Zhurnal Obshchey Biologii, Vol 30, No 3, 1969, pp 259-264.

Dept of Interior

BCF/OFF

A-37-March 1970-No 93

On Loan

Skin Test with Streptokinase for Children Suffering from Rheumatism,

RUSSIAN, per, Zh Rapoport Pediatriya, No 4, 1959, pp 42-45.

ATS RJ-5492

On the Principle of the Structure of the Taxonomy of Gobies of the Family Gobiidae, by S. G. Kryzhanovskiy, Z. M. Pchelina.

RUSSIAN, per, Zoologicheskii Zhurnal, Vol 20, No 3, 1941, pp 446-455.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 48

On Loan

Effect of Parasitic Diseases on the Condition of Fish, by Petrushevsky, Ye. P. Kogteva. 16 pp.

RUSSIAN, per, Zoologicheskii Zhurnal, Vol 33, No 2, 1954, pp 395-405.

Dept of Interior

BCF/OFF

A-37-March 1970-No 20

On Loan

Criteria of the Species Concept in Some Insects, by I.A. Rubtsov, 16pp.

RUSSIAN, per, Zoologicheskii Zhurnal, vol 38, no 5, 1959, pp. 657-671.

CFSTI TT 69-55078

The Fauna of Bloodsucking Midges (Diptera, Heleidae) of the tugai Forest in the Kura Valley in Azerbaidzhan, by Sh. M. Dzhafarov, 7pp.

RUSSIAN, per, Zoologicheskii Zhurnal, vol 39, no 8, 1960, pp. 1180-1184.

CFSTI TT 69-55078

A New Genus of the Tribe Doryctini (hymenoptera, Braconidae) and its Taxonomic Importance, by V.I. Tobias, 8pp. RUSSIAN, per, Zoologicheskii Zhurnal, vol 40, no 4, 1961, pp. 529-535. CFSTI TT 69-55078

The Pre-Imaginal Stages of Leptoconops (Holoconops) Borealis Gutz. and the Systematic Position of the Group Leptoconops (Diptera, Nematocera) by N.P. Krovosheina 6pp. RUSSIAN, per, Zoologicheskii Zhurnal, vol 41, no 2, 1962, pp. 247-251. CFSTI TT 69-55078

New Species of Psyllids (Homoptera, Psylloidea) of the Fauna of the USSR, by M.M. Loginova, 12pp. RUSSIAN, per, Zoologicheskii Zhurnal, vol 44, no 2, 1965, pp. 198-209. CFSTI TT 69-55078

Crystallization Method for Protease Streptomyces Griseus, by O. S. Tsiperovich, A. L. Loseva. UKRAINIAN, per, Ukr Biokhim Zh, Vol 39, No 3, 1967, pp 331-335. ATS UJ-5494

Antimicrobial Properties of the Bromo and Iodo Derivatives of Salicylanilide, by M. M. Rotmistrov. UKRAINIAN, per, Visn Kiivs'k Univ No 2, Ser Biol, No 1, 1959, pp 81-84. ATS UJ-5489

Study of the Solubility and Antimicrobial Activity of N-dichloroiodosalicylanilide and Its Halogen Derivatives, by S. S. Stavs'ka. UKRAINIAN, per, Visn Kiivs'k Univ No 2, Ser Biol, No 5, 1962, pp 77-80. ATS UJ-5490

Bahrain's Health Service Makes Giant Strides, by Sadiq ash-Shihabi, 6 pp. ARABIC, per, Huma al-Bahrain, Bahrain, Apr 1970, pp 26-32. JPRS 50707

Preliminary Data on the Influence of Zinc, Copper and Cobalt on Fish Productivity in Bulgarian Carp Ponds, by N. Margarilov, et al. BULGARIAN, per, Ribno Stopanstvo, Vol 16, No 5, 1969, pp 9-12. Dept of Interior BCF/OFF A-37-March 1970-No 85 On Loan

Notes on the Nuptial Coloration and Peral Organs in Chinese Fresh-water Fishes, by Shigaru Kimura, Yusan Tao. 53 pp. CHINESE, per, Journal of the Shanghai Science Institute, Vol 6, 1937, pp 277-318. Dept of Interior BCF/OFF A-37-March 1970-No 11 On Loan

Attempted Suicide with Nozinan, by J. Bastecky, A. Janik. CZECH, per, Casopis Lekaru Ceskych, Vol 102, 1963, pp 51-54. ATS CJ-5473

Penetration of Soluble Pyrogenic Substances Through a Dialyzation Membrane From Dialyzing Fluid Contaminated With Gram-Negative Bacteria, by O. Vejhora, V. Krch, 12 pp. CZECH, per, Casopis Lekaru Ceskych, Vol 107, 1968, pp 990-996. ACSI J-8093 ID 2204003470

Chlorprothixene in Psychiatric Practice, by E. Vancovsky. CZECH, per, Cesk Psychistrie, Vol 60, No 4, 1964, pp 240-245. ATS CJ-5471

Submucosa Tissue Reaction to Suture Material in a Long-Term Experiment, by J. Kavlova, M. Janousipva, 8 pp. CZECH, per, Ceskoslovenska Stomatologie, Vol 68, Mar 1968, pp 114-120. ACSI J-8075 ID 2204002770

Kinetics of the Alkaline Inactivation of Aureomycin, by J. Soskocil. CZECH, per, Chem Listy, Vol 47, 1953, pp 503-511. ATS CJ-5496

Scientific
Biological & Medical Sciences (Contd)

Toxic Effects of Heptachlor, by L. Rosival.
CZECH, per, Lekarske Listy, Vol 51, No 2, 1969,
pp 170-183.
ATS SK-5474

Natural Enemies and Diseases of the
Ambrosia Beetle Pest Trypodendron
Lineatum Oliv, by Vladimir Novak, 20pp.
CZECH, bk, Prirozeni Nepratele a Nemoci
Drevokaza Carkoveho Trypodendron Lineatum
Oliv, 1960.
CFSTI TT 68-50105

A New Coccidiostatic Agent 6-Azauravil, by
B. Klimes.
CZECH, per, Vet Med, Vol 8, No 4, 1963,
pp 209-212.
ATS CJ-5504

The Effect of Prolonged Application of High Doses
of the Coccidiostatic Agent 6-Azauracil on the
Main Productivity Characteristics of Poultry.
by B. Klimes.
CZECH, per, Vet Med, Vol 9, No 2, 1964, pp 87-90.
ATS CJ-5503

Temporary and Permanent Auditory Decrease After
Damage to Hearing Caused by Noise, by
F. Debaillie, G. Van Houte.
DUTCH, per, T. Soc Geneesk, Vol 46, No 7, 1968,
pp 252-256.
C.E. Trans 5305

Schistosoma mansoni Antigens. Comparative
Immunoelectrophoretic Study on Various Larval
Stages and Adults of Both Sexes. Immunological
Aspects of Host-parasite Relationship Between
Cercaria and Adult S. mansoni, by A. Capron,
J. Biguet, et al. 20 pp.
FRENCH, per Ann Inst Pasteur, Vol 109, No 5,
1965, pp 798-810.
Dept of Navy/NMS 1443

Aneurysmatic Tumors of the Bone, by M. Pean, 6 pp.
FRENCH, per, Bulletin De L'Academie De Medecine,
Series 3, Vol 35, No 2, 1896, pp 147-153.
ACSI J-8072
ID 2204003270

Scientific
Biological & Medical Sciences (Contd)

Groups of Transferrins in the Eel. Phenotypic
Differences Between Atlantic and Mediterranean
Eels, by A. Drilhon, 6 pp.
FRENCH, per, C. R. Acad Sci., No 262, 1966,
pp 1315-1318.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 10
On Loan

Groups of Transferrins in Anguilla Anguilla L.
Phenotypes Observed in a Population Fished Off
the Coast of Turkey, by A. Drilhon, 5 pp.
FRENCH, per, C. R. Acad Sci., No 267, 1968,
pp 1858-1860.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 11
On Loan

Fractionation of Rat Pituitaries and Study of the
Thyrotropic, Gonadotropic and Heterothyrotropic
Activities of the Purified Products, by
Y. A. Fontaine. 13 pp.
FRENCH, per, Gen Comp Endocrinol, Vol 11, 1968,
pp 160-168.
NASA TT F-12,877

Study on the Action of Various Immunosuppressive
Agents on Pulmonary Allografts in Dogs, by
R. Megevand, A. Cruchaud, et al, 6 pp.
FRENCH, per, Helv Chir Acta, Vol 35, 1968,
pp 327-330.
Dept of Navy/NMS 1449

New Antigens in Cells Transformed by SV40, by
Ch. de Vaux Saint Cyr, A. Herbert, 14 pp.
FRENCH, per, Int. J. Cancer, No 4, 1969,
pp 616-625.
AEC/ORNL-Tr-2287-70

Functional Rehabilitation in the Swimming Pool
for Patients with Coxarthrosis (based on 1500
cases), by J. B. Graber-Duvernay. 17 pp.
FRENCH, per, J Med Lyon, Vol 44, 1963, pp 935-948.
Dept of Navy/NMS 1477

Therapeutic Effects of the Vaccine Extracts From
Keratinophilic Mushrooms of the Soil, by
I. Alteras.
FRENCH, per, Mycopathologia et Mycologia
Applicata, Vol 38, 1969, pp 145-150.
*ACSI J-8378
ID 2204009670

Scientific
Biological & Medical Sciences (Contd)

Continuous Peritoneo-venous Perfusion of Ascitic Fluid, by L. Leger, J. C. Camus, et al. 9 pp.
FRENCH, per, Presse Med, Vol 76, No 3, 1968, pp 126-128.
Dept of Navy/NMS 1424

Homotransplantation of the Heart-Lung Block into the Abdomen, by D. Guilmet, I. Gandjbakhch, et al. 11 ppp.
FRENCH, per, Presse Med, Vol 76, 1968, pp 1401-1403.
Dept of Navy/NMS 1439

Vasodilation Disorders, by Rene Leriche, 19 pp.
FRENCH, bk, Physiologie Pathologique et Traitement Chirurgical des Malades Arterielles de la Vasomotricite, Chapter 10, 1945, pp 271-287.
ACSI J-8191
ID 2204005970

Effect, According to Dose, of the Pretreatment of Mice Recipients of Skin Homografts with Lipoproteic, Hydrosoluble, and Purified H-2 Antigen Preparations, by I. Florentin. 10 pp.
FRENCH, per, Rev Franc Etudes Clin et Biol, Vol 14, No 7, 1969, pp 690-693.
Dept of Navy/NMS 1517

Helminthiasis Occurrence and Treatment Reviewed, by Do Duong Thai, 11 pp.
FRENCH, per, Revue Medicale, Hanoi, 1969, pp 99-108.
JPRS 50612

Medical Training of the Personnel of the Soviet Armed Forces in the Field of Hygiene and First Care, by A. S. Nikichine.
FRENCH, per, Revue Internationale Des Services De Sante, No 11, 1969, pp 757-763.
*ACSI J-8438
ID 2204010370

Mandibular Hemangiomas, by R. Marie, J. Barety, 14 pp.
FRENCH, per, Revue de Stomatologie, Vol 54, 1953, pp 940-950.
ACSI J-8074
ID 2204002570

Scientific
Biological & Medical Sciences (Contd)

Contribution to the Identification of Higher Fatty Acids by Means of Gas Chromatography and Graphic Evaluation Methods, by J. Krupcik, O. Liska, 13 pp.
GERMAN, per, Chromatographia, No 2, 1969, pp 393-396.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 141
On Loan

Plasmocytoma of the Middle Ear, by K. H. Goll, G. Rumpf. 12 pp.
GERMAN, per, Das Deutsche Gesundheitswesen, No 33, 1964, pp 1542-1545.
AIR/FTD/HT-23-443-69

Immunity Against Polio in GDR Discussed, by B. Boethig, J. Hils, 9 pp.
GERMAN, per, Das Deutsche Gesundheitswesen, East Berlin, 16 Apr 1970, pp 72-707.
JPRS 50698

Preliminary Investigations on Herring, by Ulrich Falk, 10 pp.
GERMAN, per, Fischerer-Forschung Wissen Schrift., Vol 1, No 1, 1963, pp 20-24.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 52
On Loan

Observations on the Occurrence, the Distribution and the Behaviour of Overwintering Shoals of Sprats in the North East of the Baltic Sea, by O. Rechlin, 10 pp.
GERMAN, per, Fisch-Forschung, Vol 5, No 2, 1967, pp 33-38.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 117
On Loan

The New Regulations Regarding Protection Against Emission and Occupational Hazards and Their Effects on Foundries, by G. Engels.
GERMAN, per, Glaserer, Vol 56, Oct 1969, pp 621-624.
BISI 8273

Recent Immunological Developments in Dermatology, by W. P. Herrmann, 10 pp.
GERMAN, per, Der Hautarzt, Vol 20, No 7, 1969, pp 293-296.
ACSI J-8339
ID 2204008970

Scientific
Biological & Medical Sciences (Contd)

The Asymptomatic Growth of Fishes - a Nonsense,
by F. Krueger, 15 pp.
GERMAN, per, Helgolaender Wiss Meeresunters, No 19,
1969, pp 205-215.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 36
On Loan

Thermal Comfort While Wearing Aviation Helmets,
Especially in Helicopters, by N. J. L. van der Valk.
12 pp.
GERMAN, rpt, Inst Zintuigsfysiologie RVO-TNO Rept.
12 F, 1968-1969, 9 pp.
NASA TT F-12,876

Quantitative Distribution and Population Dynamics
of the Mesopsammon on the Tidal Sand Shore of the
North Sea Isle of Sylt. 1. Factors and Biological
Division of the Ecological Environment, by
Peter Schmidt. 30 ppp.
GERMAN, per, Int Rev Ges Hydrobiol, Vol 53, No 5,
1968, pp 723-779.
Dept of Interior
BCF/OFF
A-37-March 1970-No 72
On Loan

On the Specific Light-Related Position of
Deciduous Leaves, by G. Krabbe. 68 pp.
GERMAN, per, Jahrb Wiss Botan, Vol 20, 1889,
pp 211-260.
NASA TT F-12,755

Research on the Geotropic Stimulation Process.
Part I. The Geotropic Sensitivity of Plants,
by Hans Fitting. 136 pp.
GERMAN, per, Jahrb Wiss Botan, Vol 41, 1905,
pp 221-330.
NASA TT F-12,579

Research on the Geotropic Stimulation Process.
Part II. Further Results with Intermittent
Stimulation, by Hans Fitting. 94 pp.
GERMAN, per, Jahrb Wiss Botan, Vol 41, 1905,
pp 331-398.
NASA TT F-12,670

Susstitution of Acrylic Adhesives for Surgical
Sutures, by Von H. Siemens, P. Rathert, 10 pp.
GERMAN, per, Medizinische Klinik, Vol 61, No 14,
1966.
ACSI J-8291
ID 2204007470

Scientific
Biological & Medical Sciences (Contd)

Treatment of Cytostatically Caused Hematological
Secondary Effects by Bone Marrow Transfusion, by
S. Witte.
GERMAN, per, Muench Med Wschr, Vol 102, 1960,
pp 1251-1253.
*Dept of Navy/NMS 1518

Echo Orientation in Mixodiaptomus Laciniatus,
by Roland Schroder. 9 pp.
GERMAN, per, Die Naturwissenschaften, Vol 47,
No 23, 1960, pp 548-549.
Dept of Interior
BCF/OFF
A-37-March 1970-No 6
On Loan

On the Development of Congenital Deformities
Following Influenza of the Mother, by A. Schubert.
8 pp.
GERMAN, per, Paediat Grenzgeb, Vol 7, 1968,
pp 205-209.
Dept of Navy/NMS 1444

Comparison of Instructions Concerning Testing for
Pyrogens in Different Pharmacopoeias, by
H. Wigert, R. Wigert, 9 pp.
GERMAN, per, Pharmazeutische Zentralhalle fur
Deutschland, Vol 101, No 9, 1962, pp 527-534.
ACSI J-8215
ID 2204006170

Pyrogenic Substances, Their Properties and Their
Destruction, by K. Rudat, 10 pp.
GERMAN, per, Pharmazie, Vol 13, No 11, 1958,
pp 677-681.
ACSI J-8112
ID 2204003770

Concerning Several Mechanomorphoses in the
Fertilized Frog Egg Due to Centrifugal Force,
by Oscar Hertwig. 10 pp.
GERMAN, per, Sitz-Ber Akad Wiss Preuss, 1897,
pp 14-18.
NASA TT F-12,582

Pacemaker in Holt-Oram Syndrome, by A. Seling.
5 pp.
GERMAN, per, Zbl Chir, Vol 42, 1968, pp 1488-1492.
Dept of Navy/NMS 1473

Scientific
Biological & Medical Sciences (Contd)

Allergenic Activity of the Polysaccharide Protein Complexes of Candida, by D. Sikl.
GERMAN, per, Zeitschrift fur Immunitatsforschung, Allergie, und Klinische Immunologie, Vol 138, No 3, July 1969, pp 207-215.
*ACSI J-8379
ID 2204009770

Experiments on Separation of Pyrogenic Principles From Myxoviruses, by R. Siergert, H. L. Shu, 10 pp.
GERMAN, per, Zeit fur Natur., Vol 22B, 1967, pp 155-158.
ACSI J- 8116
ID 2204004270

Skiing Traumatology and Safety Bindings, by F. Hegi, M. Del Pedro, 14 pp.
GERMAN, per, Zeitschrift fur Unfallmedizin und Berufskarankheiten, Vol 61, 1968, pp 51-62.
ACSI J-8320
ID 2204008670

Vancomycin-Type Antibiotics, by M. G. Brazsnyikova.
HUNGARIAN, per Kem Kozlemen, Vol 27, 1967, pp 143-162.
ATS HJ-5457

Development of Veterinary Medicine Traced, 14 pp.
HUNGARIAN, per, Magyar Allatorvosok Lapja, Budapest, Mar 1970, pp 128, 133-138.
JPRS 50610

Problems of Mixing and Aeration in Submerged Culture Processes, by Z. L. Lengyel.
HUNGARIAN, per, Magy Kem Lapja, Vol 24, No 2, 1969, pp 83-87.
ATS HJ-5455

Treatment of Insulin-Resistant Diabetes with Porcine Insulin, by I. Magyar.
HUNGARIAN, per, Orv Hetilap, Vol 107, 1966, pp 829-832.
ATS HJ-5470

2nd Programming Course on the Applications of Electronic Computers in Biology and Medicine, Sept 16-Dec 14, 1968. Part VIII: Statistical Methods in Biology and Medicine. I., 60 pp.
ITALIAN, rpt, Source Unknown, 25 Jan 1969.
ACSI J-8224
ID 2204006370

Scientific
Biological & Medical Sciences (Contd)

Ecological Studies on a Clupeoid Fish Argentina Semifasciata Kishinouye. I. The Relation Between Body Length and Body Weight, by Ochiai Akira, 11 pp.
JAPANESE, per, Bulletin of the Japanese Society of Scientific Fisheries, Vol 18, No 4, 1952, pp 136-139.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 5
On Loan

Ecological Studies on a Clupeoid Fish Argentina Semifasciata Kishinouye. III. On the Gonad, by Ochiai Akira, 7 pp.
JAPANESE, per, Bulletin of the Japanese Society of Scientific Fisheries, Vol 19, No 9, 1954, pp 968-972.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 6
On Loan

On the Age and the Growth of the Argentine - Argentina Semifasciata Kishinouye, by Isao Hanyu, 20 pp.
JAPANESE, per, Bulletin of the Japanese Society of Scientific Fisheries, Vol 21, No 9, 1956, pp 991-999.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 4
On Loan

Ecological Studies on the Feeding of Fishes - IV, Satiation Curve, by Naonori Ishiwata.
JAPANESE, per, Nihon Suisan Gakkai-Shi, Vol 34, No 8, 1968, pp 691-694.
Dept of Interior
BCF/OFF
A-37-March 1970-No 29
On Loan

Study on the Composition and Immunity of Tricophytin.
JAPANESE, per, Nippon Ika Daig Z., Vol 36, No 4, 1969, pp 283-299.
*ACSI J-8376
ID 2204009470

Scientific
Biological & Medical Sciences (Contd)

Analysis of Natural Soils. II. On the Constitution of Fatty Acids and Fatty Alcohols and Structures of Their Branches Chain Materials in Human Skin Lipids Extracted From Soiled Undershirts, by Hayashi Nobuta Shigeo Inoue, 19 pp.
JAPANESE, per, Yukagaku, Vol 18, No 5, 1969, pp 242-248.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 139

Analysis of Natural Soils. III. On the Constitution of Hydrocarbons and Waxes in Human Skin Lipids Extracted From Soiled Undershirts, by Hayashi Nobuta, Shigeo Inoue, 9 pp.
JAPANESE, per, Yukagaku, Vol 18, No 5, 1969, pp 249-251.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 140
On Loan

Sanitation Reform During Spring Months Demanded, by Kim Se-il, 6 pp.
KOREAN, np, Minju Choson, P'yongyang, 3 Mar 1970, p 3.
JPRS 50638

Handling of Fish on Board, by Hans J. Fjortoft, 66 pp.
NORWEGIAN, per, Fiskeridirektoratets Smaskrifter, No 3, 1969, pp 5-70.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 122
On Loan

Phytoplankton Coefficients as a Method of Defining the Degree to which Water Habitats are Trophic, by J. Poltoracka.
POLISH, per, Ekologia Polska, Ser B, Vol 15, No 2, 1969, pp 119-128.
*CFSTI TT 70-55105

Treatment of Manic Conditions with Lithium Salts, by J. Gromska.
POLISH, per, Neurol Neurochir Psychiat Polska, Vol 12, No 4, 1962, pp 575-581.
ATS PJ-5472

Modification of the Structure of Deoxyribonucleic Acid in Microorganisms, by Z. Opara-Kubinska.
POLISH, per, Postepy Biochem, Vol 7, No 2, 1961, pp 289-298.
ATS PJ-5486

Scientific
Biological & Medical Sciences (Contd)

On the Biology of the Baltic Herring, by Jozef Popiel, 85 pp.
POLISH, per, Prace Morskiego Instytutu Rybackiego W Gdyni, No 8, 1955, pp 5-68.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 55
On Loan

Vitamin Value of Oil From the Liver of the Atlantic Cod, and its Production at Sea, During the Working Cycle, by Teresa Krassowska, 13 pp.
POLISH, per, Przemysl Spozywczy, Vol 23, No 1, 1969, pp 9-11.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 124
On Loan

Crayfish, by J. Kossakowski.
POLISH, bk, Raki, 1966, 292 pp.
*CFSTI TT 70-55114

Biology and Catches of Jack Mackerel Off West Africa, by J. Wojciechowski. 17 pp.
POLISH, per, Technika i Gospodarka Morska, Vol 19, No 6/216, 1969, pp 267-270.
Dept of Interior
BCF/OFF
A-37-March 1970-No 43
On Loan

Natural Science Aspects of Controlling the Volume of Fish Catches, by B. Draganik.
POLISH, per, Technika i Gospodarka Morska, Vol 19, No 2, 1969, pp 304-306.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 128

Fish to the Assistance of Power Plants Staffs, by Ryszard Nowicki, 5 pp.
POLISH, per, Tygodnik Morski, Vol 9, No 49(455), 1967, p 7.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 126
On Loan

Occurrence, Ecology and Geographical Distribution of
Galba Trunculata O. F. Mull., by J. Drozd,
A. Malczewski.

POLISH, per, Wiadomosci Parazytologiczne, No 5,
1956, pp 175-176.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 92

On Loan

Investigations of the Biology and Ecology of
Galba Trunculata and the Liver Fluke Larvae,
by W. Chowanec.

POLISH, per, Wiadomosci Parazytologiczne, No 5,
1957, pp 177-178.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 91

On Loan

Research on the Toxicity of Butylhydroxytoluene
(BHT), by A. Sporn, O. Schobesch.

ROMANIAN, per, Igniena, Vol 9, No 2, 1961,
pp 113-119.

ATS RU-5475

Attack Medical Personnel for Ethics Violation,
by A. Profeta, 6 pp.

RUMANIAN, np, Muncitorul Sanitar, Bucharest,
10 Mar 1970, pp 1, 4.

JPRS 50649

Determination of Trace Elements in a Vitamin
Mixture, by Z. Blagojevic.

SERBO-CROATIAN, per, Acta Pharm Jugoslav, Vol 14,
1964, pp 37-43.

ATS CR-5469

Malformations Caused by Glutarimide Derivatives,
by T. Beritic, A. Markicevic.

SERBO-CROATIAN, per, Lijecnicki Vjesnik, Vol 84,
1962, pp 698-701.

ATS CR-5482

Drug Therapy on Schizophrenic Psychoses
Evaluated, by Stojan Vuchovic, Edwin Til,
5 pp.

SERBO-CROATIAN, per, Medicinski Pregled,
Novi Sad, Nos, 9-10, 1969, pp 437-438.

JPRS 50643

Miracidium of Schistosoma mansoni. Anatomy,
Cytology, Physiology, by C. Ottolina. 116 pp.

SPANISH, rpt, Ministry of Health and Social
Assistance, Caracas, Venezuela, Vol 22, No 1-4,
1957, pp 98-214.

*Dept of Navy/NMS 1480

Immunology of Candidiasis, by R. Negróni.
SPANISH, per, Mycopathologia et Mycologia
Applicata, Vol 38, 1969, pp 189-197.

*ACSI J-8377

ID 2204009570

Mercury in Food Products (2). Methyl Mercury
Poisoning From Eating Game Birds, by

Frederik Berglund, Goran Nilsson, 19 pp.

SWEDISH, per, Lakartidningen, Vol 64, No 37, 1967,
pp 3621-3627.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 30

On Loan

Mercury Content of Blood Corpuscles, Blood Plasma,
and Hair in Heavy Fish Eaters from Different Areas
of Lake Vanern and the Relation Between the Mercury
Content of these Tissues and the Mercury Content of
Fish and a Suggestion Regarding the International
Food and Health Limit Value and Its Use for Fish
and Fish Products, by Stig Tejning. 38 pp.

SWEDISH, rpt, Rapport 67 03 31 fran Yrkesmedicinska
Kliniken Vid Lasarettet i Lund, 30, 1967.

Dept of Interior

BCF/OFF

A-37-March 1970-No 26

On Loan

Furunculosis and How to Combat it, by Olle Ljungberg
5 pp.

SWEDISH, rpt, Swedish Salmon Research Institute,
Report LFI MEDD., No 8, 1965, pp 1-2.

Dept of Interior

BCF/OFF

A-37-March 1970-No 19

On Loan

Whirling Disease Caused by Myxosoma Cerebralis,
by Nils Johansson, 5 pp.

SWEDISH, rpt, Swedish Salmon Research Institute,
Report LFI MEDD., No 9, 1966, pp 1-4.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 26

On Loan

Fish Pathology Activities in North America. An
Overview Based on a Study Visit During 1967,
by Nils Johansson.

SWEDISH, rpt, Swedish Salmon Research Institute,
Report LFI MEDD., No 3, 1967, pp 1-5.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 33

On Loan

The Present State of Demersal Fish Stocks in the Gulf of Thailand as Shown From the Results of Research and Investigations, by Andhi P. Isarankura.

THAI, per, Thai Fisheries Gazette, Vol 22, No 1, 1969, pp 21-42.

*Dept of Interior
BCF/OFF

Pham Ngoc Thach's Tuberculosis Treatment Advanced, by Nguyen Dinh Huong, 13 pp.

VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc, Hanoi, No 11, Nov 1969, pp 29-34.
JPRS 50630

Regional Conference on Malaria Organized, by Nguyen Trang Phi, 5 pp.

VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc, Hanoi, No 12, 1969, pp 44-45.
JPRS 50670

Chemistry

Development and Study of a New and Highly Active Aluminosilicate Adsorbent Labeled SD, by R. G. Ismailov.

RUSSIAN, per, Dok Ak Nauk Azerb SSR, Vol 24, No 12, 1968, pp 20-25.
ATS RJ-5392

Microbial Oxidation of Various Fractions of Diesel Fuels, by A. M. Kulihev.

RUSSIAN, per, Dok Ak Nauk Azerb SSR, Vol 25, No 3, 1969, pp 28-31.
ATS RJ-5373

A Study of the Kinetics of the Formation of ZnS and the Process of Reaction Diffusion of S in ZnS, by N. N. Sirota.

RUSSIAN, per, Dok Ak Nauk BSSR, Vol 6, 1962, pp 626-628.
*CFSTI TT 70-59114

On Calculation of the Second Virial Coefficient of Dissociating Gas, by P. M. Klepatskiy.

RUSSIAN, per, Doklady Akademiy Nauk Belorusskoy SSSR, Vol 13, No 12, 1969, pp 1073-1075.
*NASA TT F 13,101

Infrared Absorption Spectra of Complex Formates of Thorium, by O. N. Yevstaf'yeva, O. M. Ivanova, 5 pp.

RUSSIAN, per, Dokl Akad Nauk SSSR, 172, 1967, pp 860-862.
AEC/RFP-Tr-63-70

Study of the Processes of Formation of a New Phase From Aqueous Solutions of Polyvinyl Alcohol, by G. N. Kormanovskaya.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol 183, No 2, 1968, pp 348-351.
ATS RJ-5357

Operation of Electrolytic Installations for the Production of Hydrogen and Oxygen, by A. B. Gol'dshteyn, F. Z. Serebryanskiy, 78 pp.
RUSSIAN, bk, Ekspluatatsiya Elektroliznykh Ustanovok dlya Polucheniya Vodoroda i Kisloroda, Moscow, 1969, 89 pp.
JPRS 50566

Comparative Hydrochemical Characteristics of Cooling Ponds of Large Thermal Power Stations in the Ukraine, by S. I. Abremskaya.

RUSSIAN, per, Gidrobiologicheskii Zhurnal, Vol 5, No 1, 1969, pp 38-42.

Dept of Interior
BCF/OFF
A-37-March 1970-No 118
On Loan

Method of Determining 3,4-Benzopyrene Liberated During Volatilization of the Anode Material in Cell Rooms of Aluminum Plants, by A. S. Filatova.
RUSSIAN, per, Gigiena i Sanit, Vol 31, No 6, 1966, pp 55-58.

ATS RJ-5448

The Diffusion of Some Elements in Liquid Fe, by B. V. Stark.

RUSSIAN, per, Izv Ak Nauk SSSR, OTN, No 11, 1951, pp 1689-1695.
*CFSTI TT 70-59115

Optimal Control Algorithm for a Catalytic Reforming Unit, by B. A. Bel'tsov.

RUSSIAN, per, Izv VUZ Neft i Gaz, Vol 10, No 4, 1967, pp 111-114.
ATS RJ-5389

Radiometric Methods, by V. I. Baranov.

RUSSIAN, per, Khim Nauka i Prom, Vol 4, 1959, pp 526-530.
C.E. Trans 5313

Scientific
Chemistry (Contd)

Alkylation of Benzene with Olefins on Acid-type Solid Catalysts, by A. A. Bakhshi-Zade, RUSSIAN, per, Khim Prom, Vol 43, No 9, 1967, pp 661-666.
ATS RJ-5385

Kinetics of Accumulation of Products in Liquid-Phase Oxidation of Parafins, by M. N. Manakov. RUSSIAN, per, Khm Prom, Vol 45, No 1, 1969, pp 6-7.
ATS RJ-5374

Organosilicon Material for the Production of Thermally Stable Resistors, by N. S. Chernaya. RUSSIAN, per, Khim Prom Ukr, No 1, 1969, pp 53-55.
ATS RJ-5370

Determination of the Optimum Process Temperatures for Catalytic Cracking, by A. T. Pivovarev. RUSSIAN, per, Khim i Tekhnol Topliv i Masel, Vol 9, No 9, 1964, pp 7-10.
ATS RJ-5398

Heat Effects in Catalytic Cracking, by D. I. Orochko, G. N. Chernakova. RUSSIAN, per, Khim i Tekhnol Topliv i Masel, Vol 13, No 3, 1968, pp 8-10.
ATS RJ-5400

A Study of the Principal Conversions of Hydrocarbons During Hydrocracking, by V. A. Khavkin. RUSSIAN, per, Khim i Tekhnol Topliv i Masel, Vol 14, No 1, 1969, pp 7-10.
ATS RJ-5394

Structural Study of the Alkyl Phenols which form in the Alkylation of Phenol with Propylene Trimer by Molecular Spectroscopy and Thin-layer Chromatography, by T. N. Piliyev. RUSSIAN, per, Khim i Tekhnol Topliv i Masel, Vol 14, No 3, 1969, pp 19-25.
ATS RJ-53-86

Appraisal of the Prospects for Adoption of Hydrocracking of Distillate Feedstock, by L. I. Yerkina. RUSSIAN, per, Khim i Tekhnol Topliv i Masel, Vol 14, No 3, 1969, pp 29-33.
ATS RJ-5395

Hydrogen Refining of Liquid Pyrolysis Products to Obtain Aromatic Hydrocarbons, by A. D. Berents. RUSSIAN, per, Khim i Tekhnol Topliv i Masel, Vol 14, No 4, 1969, pp 6-9.
ATS RJ-5384

Scientific
Chemistry (Contd)

Continuous Catalyzed Oxidation of Liquid Parafins in the Presence of Water, by V. K. Tsyakovskiy. RUSSIAN, per, Khim i Tekhnol Topliv i Masel, Vol 14, No 4, 1969, pp 26-29.
ATS RJ-5375

Study of the Process of Pyrolysis of Gas Coal and Its Microcomponents, by B. V. Nelyubin, G. P. Alayev. 12 pp. RUSSIAN, per, Khimiya Tverdogo Topliva, No 1, 1969, pp 44-50.
AIR/FTD/HT-23-636-69

Special Features of the Interaction of Graphitized Carbon Materials with Gases in the 700-2500° Temperature Region, by I. A. Yavorskiy, M. D. Malanov. 11 pp. RUSSIAN, per, Khimiya Tverdogo Topliva, No 1, 1969, pp 139-144.
AIR/FTD/HT-23-631-69

Rheological Properties of Solutions of Poly(Vinyl Alcohol) - Polyaricylic Acid Graft Copolymers, by G. G. Danelyan. RUSSIAN, per, Khim Volokna, Vol 11, No 2, 1969, pp 27-29.
ATS RJ-5358

The Adhesion of Thermoplastic and Thermoreactive Polymeric Bonding Agents to Organic Fibers, by A. I. Kurilenko, G. V. Shiryayev. 7 pp. RUSSIAN, rpt, Nauchnoy Konferentsiya po Fiziko-Khimicheskoy Mekhaniki Poristyykh i Voloknistyykh Dispersnykh Struktur i Materialov, 1967, pp 299-303.
AIR/FTD/MT-24-321-69

Catalytic Demethylation of Toluene, by G. N. Maslyanskiy. RUSSIAN, per, Neftekhimiya, Vol 2, No 5, 1962, pp 709-715.
ATS RJ-5383

The Activity and Selectivity of Nickel Catalysts of Various Compositions in the Catalytic Demethylation of Toluene with Steam, by T. I. Poletayeva. RUSSIAN, per, Neftekhimiya, Vol 4, No 6, 1964, pp 844-849.
ATS RJ-5382

Dry Demetallization of a Poisoned Silica-Alumina Catalyst, by R. M. Masagutov. RUSSIAN, per, Neftepererab Neftekhim, No 4, 1968, pp 5-8.
ATS RJ-5377

Scientific
Chemistry (Contd)

Deformation of Binary Alloys of Uranium Containing 0-20 AT - %, 0-30 AT - % Nb and 0-100 AT - % Zr When Subjected to Cyclic Heating up to 600-900°C, by V. K. Grigorovich, N. Ye. Golovkina. 22 pp.

RUSSIAN, rpt, Physical Chemistry of Alloys and Refractory Compounds of Thorium and Uranium. Bykov Metallurgical Institute, Academy of Sciences of the USSR, Moscow, 1968, pp 28-37.
AEC/UCRL/Trans-10453-70

Kinetics of the Isothermal Transformation of Gamma Solid Solutions of Some Uranium Alloys, by V. B. Kishinevskiy, A. A. Tret'yakov. 25 pp.
RUSSIAN, rpt, Physical Chemistry of Alloys and Refractory Compounds of Thorium and Uranium. Bykov Metallurgical Institute, Academy of Sciences of the USSR, Moscow, 1968, pp 42-52.
AEC/UCRL/Trans-10452-70

Temperature Dependence of the Strength, Plasticity and Elastic Properties of Alloys of Uranium with Zirconium, Niobium and Molybdenum, by V. A. Bugrov, V. K. Grigorovich, et al. 21 pp.
RUSSIAN, rpt, Physical Chemistry of Alloys and Refractory Compounds of Thorium and Uranium. Bykov Metallurgical Institute, Academy of Sciences of the USSR, Moscow, 1968, pp 62-69.
AEC/UCRL/Trans-10454-70

Corrosion Resistance in Water of Some Alloys of Uranium with Zirconium, Niobium and Molybdenum, by V. B. Kishinevskiy, L. I. Gomofov, et al. 11 pp.
RUSSIAN, rpt, Physical Chemistry of Alloys and Refractory Compounds of Thorium and Uranium. Bykov Metallurgical Institute, Academy of Sciences of the USSR, Moscow, 1968, pp 81-86.
AEC/UCRL/Trans-10455-70

Effect of Some Factors on the Emulsion Polymerization of Vinyl Chloride, by V. M. Soldatov.
RUSSIAN, per, Plast Massy, No 1, 1969, pp 5-6.
ATS RJ-5356

Films from a Vinylidene Chloride-2-Ethylexyl Acrylate Copolymer Latex, by Ye. P. Dontsova.
RUSSIAN, per, Plast Massy, No 1, 1969, pp 11-13.
ATS RJ-5372

Low-Pressure Emulsion Copolymerization of Vinyl Acetate with Ethylene, by A. F. Nikolayev.
RUSSIAN, per, Plast Massy, No 6, 1969, pp 8-10.
ATS RJ-5354

Scientific
Chemistry (Contd)

Emulsion Polymerization of Vinyl Chloride in the Presence of Sodium Bis(2-Ethylexyl) Sulfosuccinate, by A. I. Krymova.
RUSSIAN, per, Plast Massy, No 6, 1969, pp 10-13.
ATS RJ-5353

Handbook of Solid-Liquid Equilibria in Systems of Anhydrous Inorganic Salts, vol 1, by N.K. Voskresenskaya, 883pp.
RUSSIAN, bk, Spravochnik po Plavkosti Sistem iz Bezvodnykh Neorganicheskikh Solei, 1961
CFSTI TT 69-55079/1
AEC-tr-6983/1
UC-4

Handbook of Solid-Liquid Equilibria in Systems of Anhydrous Inorganic Salts, Vol 2, by N.K. Voskresenskaya, 570pp.
RUSSIAN, bk, Spravochnik po Plavkosti Sistem iz Bezvodnykh Neorganicheskikh Solei, 1961.
CFSTI TT 69-55079/2
AEC-tr-6983/2
UC-4

Effect of the Carbon Oxidation Inhibitors on the Behavior of Carbon Anode During the Electrolytic Production of Aluminum, by G. F. Vedernikov.
RUSSIAN, per, Tsvet Metal, Vol 40, No 1, 1967, pp 69-72.
ATS RJ-5444

Hydrodynamic Conditions and Their Influence on the Gas Content and Conductivity of (Aluminum Reduction Cell) Electrolyte, by V. V. Nerubashchenko.
RUSSIAN, per, Tsvet Metal, Vol 40, No 4, 1967, pp 53-57.
ATS RJ-5449

Analysis of the Conditions Contributing to the Migration of Sodium to Cathode Aluminum, by V. N. Senin.
RUSSIAN, per, Tsvet Metal, Vol 40, No 5, 1967, pp 53-57.
ATS RJ-5441

The Loss Rate of Aluminum in Cryolite-Alumina Melts, by O. P. Bersimenko.
RUSSIAN, per, Tsvet Metal, Vol 40, No 5, 1967, pp 61-64.
ATS RJ-5442

The Technology of Electrolytic Production of Aluminum with Low Metal Level in the Cells, by D. I. Gerasimchuk.
RUSSIAN, per, Tsvet Metal, Vol 40, No 12, 1967, pp 29-31.
ATS RJ-5445

The Effect of LiF on Certain Physiochemical Properties of Cryolite-Alumina Melts, by A. A. Vol'berg.
RUSSIAN, per, Tsvet Metal, Vol 41, No 9, 1968, pp 63-64.
ATS RJ-5429

Reactivity of Free Radicals and Molecules in Free-radical Reactions, by Yu. L. Spiron.
RUSSIAN, per, Usp Khim, Vol 38, No 7, 1969, pp 1201-1222.
ATS RJ-5350

Pyrolysis of Ethane-Propane Fraction in the Presence of Molten Lead, by N. S. Pechuro.
RUSSIAN, per, Uzb Khim Zh, Vol 13, No 2, 1969, pp 76-79.
ATS RJ-5397

Composition Equations of Three-Component Copolymers Part I, by A. I. Tarasov.
RUSSIAN, per, Vysokomol Soedin, Vol 2, No 11, 1960, pp 1601-1607.
ATS RJ-5365

New Method for the Preparation of Random, Block, and Graft Copolymers, by B. A. Rozenberg.
RUSSIAN, per, Vysokomol Soedin, Vol 7, No 12, 1965, pp 2172-2173.
ATS RJ-5366

Oxidation of Some Polyaryleneethylenes to the Hydroperoxides, by G. S. Kolesnikov.
RUSSIAN, per, Vysokomol Soedin, Vol 8, No 2, 1966, pp 327-331.
ATS RJ-5367

Determination of Intrinsic Viscosity of Polymer Solutions from a Single Measurement, by A. A. Berlin.
RUSSIAN, per, Vysokomol Soedin, Vol 10 B, No 1, 1968, pp 21-24.
ATS RJ-5361

Polymerization of Acrylamide and Some Other Acrylic Monomers in the Presence of Precipitants, by L. M. Novichkova.
RUSSIAN, per, Vysokomol Soedin, Vol 10 B, No 1, 1968, pp 55-57.
ATS RJ-5362

Chain Transfer Reaction Via Polymer with Chain Rupture During Copolymerization of Butyl Vinyl Ether and Epichlorohydrin in the Presence of the Catalytic System Triethylaluminum-Water, by V. A. Ponomarenko.
RUSSIAN, per, Vysokomol Soedin, Vol 11 A, No 5, 1969, pp 974-979.
ATS RJ-5364

Kinetics of the Deposition of Coke on Catalysts, by M. Ye. Levinter.
RUSSIAN, per, Zh Fiz Khim, Vol 41, No 11, 1967, pp 2799-2805.
ATS RJ-5391

Photochemical Crosslinking of Rubber Molecules Upon Introduction of Diazides, by A. G. Vavilov.
RUSSIAN, per, Zh Nauch Prikl Fotogr Kinematogr, Vol 13, No 6, 1968, pp 411-415.
ATS RJ-5368

The Effect of Particle Size on Catalyst Activity in Hydrocracking, by Ya. R. Katsobashvili, N. V. Sidorova.
RUSSIAN, per, Zh Prikl Khim, Vol 40, No 3, 1967, pp 627-631.
ATS RJ-5393

Influence of Inhomogeneities in an Explosive on the Magnitude of the Critical Detonation Diameter, by S. S. Rybanin.
RUSSIAN, per, Zh Prikl Mekhan i Tekh Fiz., No 4, 1969, pp 141-144.
Dept of Navy APL/JHU T-2417

The Preparation and Thermal Decomposition of β -FeOOH, by J. Sara. 10 pp.
CZECH, per, Chemické Listy, Vol 63, No 1, 1969, pp 112-116.
AIR/FTD/HT-23-112-70

Photodegradation of Isotactic Polypropylene and Its Inhibition, by L. Balaban.
CZECH, per, Chem Průmysl, Vol 13/38, No 1, 1963, pp 45-49.
ATS RJ-5369

Scientific
Chemistry (Contd)

The Inhibition Period of Photooxidation of Polypropylene as Determined by IR Absorption Spectroscopy, by J. Majer, L. Balaban. 8 pp.
CZECH, per, Chemicky Prumysl, Vol 19/44, No 2, 1969, pp 71-73.
AIR/FTD/HT-23-79-70

Determination of the Effect of Certain Material Parameters and Temperature on the Dielectric Properties of PVC Mixtures, by I. Kreidl.
CZECH, per, Kozarstvi, Vol 18, No 11, 1968, pp 291-295.
ATS RJ-5355

Surface Breakdown of Germanium and Silicone Devices, by S. Koc, 10 pp.
CZECH, per, Slaboproudy Obzor, Vol 27, No 2, 1966, pp 71-74.
ACSI J-8346
FSTC-HT-23-1013-70

Diffusion of Gases Through Metals, by J. D. Fast.
DUTCH, per, Chemisch Weekblad, Vol 38, 1941, pp 2-8.
*CFSTI TT 70-59042

On Abnormal Diffusion, by J. Straub.
DUTCH, per, Chemisch Weekblad, Vol 47, 1951, pp 1041-1046.
*CFSTI TT 70-59039

The Diffusion of Cu in PbS, by J. Bloem.
DUTCH, per, Chemisch Weekblad, Vol 53, 1967, pp 1-4.
*CFSTI TT 70-59038

Study of the Decarboxylation of Thorium Tetraformate, by Bernard Mentzen, 39 pp.
FRENCH, per, Ann Chim, No 3, 1968, pp 367-384.
AEC/RFP-Tr-65-70

Preparation and Properties of Uranium Formates, by Rene Bressat, 13 pp.
FRENCH, per, Bull Soc Chim de France, No 12, 1968, pp 4807-4811.
AEC/RFP-Tr-64-70

γ -Absorption Porosimetric Study of Pore Sizes of Artificially Densified Graphite Modified as a Result of Natural Gas Cracking, by L. Bochirol, M. Ortega, 14 pp.
FRENCH, per, Carbon, No 6, 1968, pp 649-660.
AEC/ORNL-Tr-2297-70

Scientific
Chemistry (Contd)

Semi-Annual Report of the Department of Chemistry. FRENCH, rpt, CEA-N-1148, Section 1, pp 5-80, Section 2 & 3, pp 82-97, 104-118, Section 4, 5, 6, pp 126-130, 154-155, 168-180, Section 7, 204-222, 248-271, Section 9, pp 298-313, 314-334, Section 10 & 12, pp 336-368, pp 415-416, June-Nov, 1968.
AEC/ANL-Tr-801-70

Atomic Absorption Flame Photometry. Description of Apparatus Specially Developed in the Laboratory, by G. Thilliez.
FRENCH, per, Chimie Analytique, Vol 46, Jan 1964, pp 3-22.
C.E. Trans 5097

Application of the Gas Removal Method by Electronic Bombardment in the Determination of Gas in Ni-Cr steel, by L. Moreau.
FRENCH, per, Comptes Rendus Acad Sci, Vol 213, 1941, pp 732-734.
*CFSTI TT 70-58235

On the Status of Hydrogen Diffusion in Fe at Room Temperature, by G. Chaudron,
FRENCH, per, Comptes Rendus Acad Sci, Vol 213, 1941, pp 790-792.
*CFSTI TT 70-58210

On the Passage of Hydrogen Through Iron, by G. Sutra.
FRENCH, per, Comptes Rendus Acad Sci, Vol 226, 1948, pp 177-179.
*CFSTI TT 70-58211

On the Purification of Zr in Oxygen by Distillation, by P. Ailloud.
FRENCH, per, Comptes Rendus Acad Sci, Vol 226, Ser C, 1968, pp 366-368.
*CFSTI TT 70-58226

About the Diffusion of Cu in Al, by S. Vignes.
FRENCH, per, Comptes Rendus Acad Sci, Vol 263, 1966, pp 1504-1507.
*CFSTI TT 70-58216

Measure of the Activation Energy at the Start of Sintering of UO₂ by Dorn's Method, by J. J. Bacmann.
FRENCH, per, Comptes Rendus, Vol 264, Ser c, 1967, pp 2077-2080.
*CFSTI TT 70-58236

Determination of Intrinsic Diffusion Coefficients by Measuring the Kirkendall Effect in the Fe-Ni System, by J. Lavasseur.
FRENCH, per, Comptes Rendus Acad Sci, Vol 264, Ser C, pp 380-383.
*CFSTI TT 70-58215

Scientific
Chemistry (Contd)

Diffusion in the Fe-Ni System, by M. Badia.
FRENCH, per, Comptes Rendus Acad Sci, Vol 264,
1967, Ser C, pp 1528-1531.
*CFSTI TT 70-58217

Evidence of Vacancy Clusters in Tempered Ni, by
S. Scherrer.
FRENCH, per, Comptes Rendus Acad Sci, Vol 267,
Ser B, 1968, pp 212-214.
*CFSTI TT 70-58228

A New Method for the Study of Diffusion Phenomena
in Ferromagnetic Spinel, by J. Nicolas.
FRENCH, rpt, Doctorate Thesis, Univ of Paris,
1966, pp 1-62.
*CFSTI TT 70-58208

Treatment of CO₂ at Bugey I, by E. Rodet.
FRENCH, per, Energie Nucleaire, Vol 11, June
1969, pp 243-245.
C.E. Trans 5301

Determination of the Thermodynamic Forces
Accurately in the Permanent State, the Diffusion
Isotherm for Carbon in Alpha-Iron, by
F. Meeks.
FRENCH, per, J Chim Phys Phys-Chim Biol, Vol 16,
1964, pp 453-454.
*CFSTI TT 70-58219

Use of Hydrogen Gas to Measure the Porosity of
Electrodeposited Au, by J. P. Fidelle.
FRENCH, rpt, Surface 66, p 117.
*CFSTI TT 70-58225

Study of the Direct Spectrophotometric Determination
of Fluoride Ions Using the Cerium (III)-Alizarine
Complexon Complex, by M. Hanocq and L. Moole,
GERMAN, per, Anal. Chim. Acta, Vol 40, 1968,
pp 13-25.
NLL Ref: 9022.27 (1079)

On the Limits of the Stability of All Liquid Jet,
by J. Plateau.
GERMAN, per, Ann Phys Chem, Vol 80, 1950,
pp 566-569.
*BISI 8342

A New Magnetic Oxygen Meter with a Very Short
Response Time and High Selectivity, by H. Hummel.
GERMAN, per, Chem Ing Tech, Vol 40, No 19,
1968, pp 947-951.
C.E. Trans 5304

Scientific
Chemistry (Contd)

Thin-Layer Chromatographic Analytical Method of
Separating the Most Common Explosives, by
J. Hansson, 6 pp.
GERMAN, per, Explosivstoffe, No 4, 1963, pp 73-77.
NAV/NIC/Tr-3036-70

Ballistics of Projectile Fragments, by
Manfred Held, 60 pp.
GERMAN, per, Explosivstoffe, Vol 15, No 12,
1967, pp 265-274; Continuation to Vol 16, No 3,
1968, pp 49-55; Vol 16, No 4, 1968, pp 73-78.
Dept of Navy NIC Trans 3038

Reprocessing of Thorium-Containing Fuels, 100 pp.
GERMAN, rpt, Gesellschaft Beschränkter Haftung,
Inst Chem Tech, Feb. 1969.
AEC/ORNL-Tr-2259-70

Reprocessing of Thorium-Containing Nuclear Fuels,
79 pp.
GERMAN, rpt, Gesellschaft Beschränkter Haftung,
Inst Chem Tech, August 1969
AEC/ORNL-Tr-2260-70

Spectropolarimetry, II Sensitivity of Photoelectric
Polarimeters, by Th. Burer and Hs. H. Gunthard,
GERMAN, per, Helvetica Chim. Acta, Vol 43, 1960,
pp 810-824.
NLL Ref: 5828.4F (13470)

A Rapid Method for the Determination of Polycyclin
Aromatic Hydrocarbons in Atmospheric Dust, by
M. Kohler, H.-J. Eichhoff.
GERMAN, per, Zeit Anal Chem, Vol 232, 1967,
pp 401-409.

On the Structure of Alloys and the
Reaction Rate of These Metals in the
Solid State, by G. Masing, 45pp.
GERMAN, per, Z. Anorg. Chem. 62, 1909,
pp. 265-309.
*NBS TT 70-57829

Some Observations of Diffusion in Poly-
crystalline Salts, by C. Tubandt, 4 pp.
GERMAN, per, Z. Anorg. Chem. 166, 1927
pp. 27-30.
*NBS TT 70-57844

Diffusion in Tightly-Bonded Crystals,
by C. Tubandt, 33 pp.
GERMAN, per, Z. Anorg. Chem. 177, 1928
pp. 253-285.
*NBS TT 70-57846

Scientific
Chemistry (Contd)

The Kinetics of Oxidation, by
H. V. Wartenberg, 10 pp.
GERMAN, per, Z. Anorg. Chem. 269,
1952, pp. 76-85.
*NBS TT 70-57859

Electrotransport and Diffusion in Some
Crystals, by A. Smekal, 12 pp.
GERMAN, per, Z. Elektrochem, vol 34, 1928
pp. 472-483.
*NBS TT 70-57871

Quantitative Measurements of Crystal
Structure Near the Surface, by
A. Kochendorfer, 12 pp.
GERMAN, per, Z. Electrochem, vol 56,
1952, pp. 283-294.
*Nat. Bur. Stand. TT 70-57876

Study of the Mineral Composition of Bauxite by
X-ray Diffraction, by G. Bardossy.
HUNGARIAN, per, Kohasz Lapok, Vol 99, No 8,
1966, pp 355-363.
ATS HJ-5446

Comparision of Different Methods for the Deter-
mination of the Capacity of Anion Resins, by
H. Berg.
GERMAN, per, Mitt. V.G.B., Vol 48, Dec 1968,
pp 468-463.
C.E. Trans 5322

Investigations on High-Melting Systems. Composition
of the Ternary System U-Zr-B, and Measurement of
the Coefficients of Thermal Expansion of $\text{Mo}_3(\text{Al},\text{Si})$,
 MoAlSi , $\text{Mo}(\text{Al},\text{Si})_2$, and TaB_2 , by H. Holleck,
F. Benesovsky, 6 pp.
GERMAN, per, Monatshefte Chemie, Vol 93, No 5,
1962, pp 1075-1078.
AEC/UCRL-Tr-10448-70

The Thermodynamics of Iron Oxide Electrodes and
Hydroxide Electrodes, by T. Markovic.
GERMAN, per, Monatshefte Chemie, Vol 95, No 1,
1964, pp 74-88.
C.E. Trans 5330

Determination of Free Acid in Plutonium Uranium
and Thorium Solutions, by Helmut Schmieder,
19 pp.
GERMAN, per, Talanta, Vol 16, 1969, pp 691-700.
AEC-Tr-7141-70

Scientific
Chemistry (Contd)

Chemistry and Reaction Kinetics of Chemical Cleaning
Processes Using Fluoride-Containing Acids, by
F. Spillner.
GERMAN, per, V.G.B. Feedwater Conf. Essen, 1968,
pp 35-43.
C.E. Trans 5281

The Kinetics of the Absorption Process of Hydrogen
in Pd, Fe, and Ni, by G. Tammann, 22 pp.
GERMAN, per, Z. Anorg. Chem. 172, 1928, pp. 43-64
*NBS TT 70-57842

A Study of the Chemical Reaction of Cu
With S, by R. Schenck, 11 pp.
GERMAN, per, Z. Elektrochem, vol 46,
1940, pp. 298-308.
*NBS TT 70-57873

Observations on O-Diffussion in Tl_2O_2 ,
 SO_2 and Quartz Glass, by R. Haul, 6 pp.
GERMAN, per, Z. Elektrochem, vol 66,
1962, pp. 636-641.
*NBS TT 70-57870

The Kinematics of Chemical Reactions,
by A. Ding, A. Henglein, 28 pp.
GERMAN, per, Zeit. Fur Naturforschung,
vol. 23 A, 1968, pp. 2084-2094.
Tr No 64, Nov 1969
AIR/AFCL/69-0521

About the Relation Between Interatomic
Potentials and Chemical Reactions, by
E. Wigner, 14 pp.
GERMAN, per, Z. Phys. Chem, B 19, 1932.
pp. 203-216.
*NBS TT 70-57860

The Electrical Properties of ZnO and CdO
by H.H. Baumbach, 13 pp.
GERMAN, per, Z. Phys. Chem, B22, 1933,
pp. 199-211.
*NBS TT 70-57854

The Electrical Properties of CoO and FeO
by C. Wagner, 8 pp.
GERMAN, per, Z. Phys. Chem. B 32, 1936.
pp. 439-446.
*NBS TT 70-57858

The Properties of Ionic Solids and the Unusual Polycrystalline Ag-Halide Case by W. Jost, 8 pp.

GERMAN, per, Z. Phys. Chem. 196, 1950 pp.188-195.

*NBS TT 70-57828

Mechanisms of Hydrogen Atom-Transport in Chemical Reaction, by St. Pawlenko, 16 pp.

GERMAN, per, Z. Phys. Chem. 237, 1968, pp. 1-16.

*NBS TT 70-57834

On the Measurement of Surface Diffusion of Ca Atoms Over Faces of Different Orientation of Some Solid Crystals, by K. Neumann, 17 pp.

GERMAN, per, Z. Phys. Chem. N.F. 37, 1963, pp. 150-166.

*NBS TT 70-57832

Studies of Metal Deficiency in (CoMg)O and (Co,Ni)O Systems, by G. Zintl.

GERMAN, per, Zeit Phys Chemie Neue Folge, Vol 48, No 5-6, 1966, pp 340-358.

C.E. Trans 5279

On the Diffusion on Top of and in Hg, by M. Volmer, 12 pp.

GERMAN, per, Z. Physik, 7, 1921, pp. 1-12

*NBS TT 70-57850

Migration of Au-198 in Contact with Gold, by G. Mayr.

ITALIAN, per, La Ricerca Scientifica, 29, 1959, pp 1545.

*Nat Bur Stand TT 70-59045

Approximate Solution of the Diffusion Equation by the Use of the Runge-Kutta and Simpson Rule, by K. Kunzka.

JAPANESE, per, J Industrial Chemistry, Vol 56, 1953, pp 821-823.

*CFSTI TT 70-57152

Compressibility and Thermal Properties of Organic Liquids at High Pressures, by K. Ueda, 5 pp.

JAPANESE, rpt, 10th High-Pressure Symp Chem Soc Japan, Sept 18-20, 1968.

AEC/UCRL-Tr-10461-70

Velocity of Ultrasonic Waves in Highly Compressed Fluids, by T. Takagi, 7 pp.

JAPANESE, rpt, 9th High-Pressure Symp Chem Soc Japan, Oct 5-7, 1967

AEC/UCRL-Tr-10462-70

Kinetics of the Reactions of Commercially Pure Ti and Ti-alloys with O₂, N₂ and H₂(l). Desorption of Hydrogen from Commercially pure Titanium, by H. Kusamichi.

JAPANESE, per, Nippon Kinzoku Gakkaishi, Vol 20, 1956, pp 39-41.

*CFSTI TT 70-57151

Diffusion of Ni-63 and W-185 in Ni-W alloys. On the Relation Between High-Temperature Creep and Diffusion in Nickel Base Solid Solutions, by K. Monma.

JAPANESE, per, Nippon Kinzoku Gakkaishi, Vol 28, 1964, pp 197-200.

*CFSTI TT 70-57155

Diffusion of Carbon in Niobium, by P. Son.

JAPANESE, per, Nippon Kinzoku Gakkaishi, Vol 31, 1967, pp 998-1001.

*CFSTI TT 70-57171

Kirkendall Diffusion in Alpha-Solid Solution of the Fe-Si System, by H. Mitani.

JAPANESE, per, Nippon Kinzoku Gakkaishi, Vol 31, 1967, pp 1341-1344.

*CFSTI TT 70-57174

Decomposition of Methane in Glow Discharge, by Y. Jariuchi.

JAPANESE, per, Reports of the Government (Japan) Chemistry Industrial Research Industry, Vol 64, No 7, 1969, pp 302.

C.E. Trans 5331

A Study of Quenched-in Vacancies in a Dilute Al-Zn Alloy, by H. H. Shimizu.

JAPANESE, per, Suiyokaishi, Vol 15, 1960-65, pp 95-98.

*CFSTI TT 70-57158

Effects of Structure on the Changes of Internal Friction of Some Steels Caused by an Absorbed Hydrogen, by M. Mizuta.

JAPANESE, per, Tetsu-to-Hagane, vol 43, 1957, pp. 1057-1059.

*CFSTI TT 70-57189

Effects of Impurities on the Hydrothermal Reactions of Alumina, by Shuitiro Ono, 34 pp.
JAPANESE, per, Yogyo Kyokai-shi, Vol 76 No 7, 1968, pp. 207-218.
Tr No. 67, March 1970
AIR/AFCRL-70-0157

Effect of Growth Rate on the Structure and Stacking Disorder of SiC Crystals Grown by the Lely Method, by Yoshizo Inomata, 25 pp.
JAPANESE, per, Yogyo Kyokai-shi, vol 76, No. 8, 1968, pp. 268-276.
TR No 63, Nov 1969
AIR/AFCRL-69-0516

Relation Between Growth Temperature and the Structure of SiC Crystals Grown by the Sublimation Method, by Yoshizo Inomata 23 pp.
JAPANESE, per, Yogyo Kyokai-shi, vol. 76 No. 9, 1968, pp. 313-319.
Tr No. 62, Nov 1969
AIR/AFCRL-69-0515

Cycloaliphatic Epoxy Resins from Dian and Dicyclopentadiene. Part I. Synthetic and Study of the Chemical Structure of Resins, by P. Penczek.
POLISH, per, Polimery, Vol 12, No 7, 1967, pp 310-317.
ATS PJ-5360

The Effect of Certain Preparation Conditions on the Physicochemical Properties of Alumina, by W. Kuczynski.
POLISH, per, Przemysl Chem, Vol 45, No 9, 1966, pp 486-489.
ATS PJ-5447

Synthesis of Polymers by Polyaddition Reactions, and the Use of Diisocyanates, by V. Mos.
ROMANIAN, per, Ind Usoara, Vol 15, No 12, 1968, pp 745-751.
ATS RU-5359

The Fundamental Theory of the Decomposition of Austenite, by R. C. Rodas.
SPANISH, per, Inst del Hierro y del Acero, 6, 1953, pp 183-209.
*Nat Bur Stand TT 70-59061

Antarctica - Commission Reports, by V. A. Bugaev, 187pp.
RUSSIAN, bk, Antarktika Doklady Komissii 1962.
CFSTI TT 68-50491

Genesis and Classification of Semi-desert Soils, by E.I. Ivanova, 261pp.
RUSSIAN, bk, Genezis i Klassifikatsiya Polupustynnykh Pochv, 1966.
CFSTI TT 69-55072

Output-Reserves Ratio of Oil Industry Examined, by M. F. Mirchink, M. V. Feygin, 12 pp.
RUSSIAN, per, Geologiya Nefti i Gaza, Moscow, No 8, Aug 1966, pp 1-7.
JPRS 50695

Resources of Producing Oil Deposits Analysed, by M. F. Mirchink, M. V. Feygin, 12 pp.
RUSSIAN, per, Geologiya Nefti i Gaza, Moscow, No 11, 1967, pp 34-38.
JPRS 50695

Voeikov Main Geophysical Observatory, 1917-1967, by M.I. Budyko, 362pp.
RUSSIAN, bk, Glavnaya Geofizicheskaya Observatoriya Imeni A.I. Voeikova za 50 Let Sovetskoi Vlasti, 1967.
CFSTI TT 68-50493

USSR Legislator Examines Water Use Bill, by L. Florent'yev, 5 pp.
RUSSIAN, np, Izvestiya, Moscow, 16 May 1970, p 2.
JPRS50695

Pulsations of the Horizontal Components of the Velocity of Ocean Currents Owing to Large-Scale Turbulence, by V. B. Shtokman, 18 pp.
RUSSIAN, per, Izvestiya Akad Nauk SSSR, Seriya Geograficheskaya i Geofizicheskaya, 1941, pp 475-483
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 86
On Loan

Variations of Water Temperature in the Northern Sea of Okhotsk, by T. T. Vinokurova.
RUSSIAN, per, Izvestiya TNIRO, Vol 59, 1965, pp 14-26.
Dept of Navy NOO Trans 477

Cinnamon Forest Soils in the Eastern Part of the Greater Caucasus, by G.A. Aliev, 76pp.

RUSSIAN, bk, Korichnevye Lesnye Pochvy v Predelakh Vostochnoi Chasti Bol'shogo Kavkaza, 1965.

CFSTI TT 69-55068

Manganese Deposits of the Soviet Union, by D. G. Sapozhnikov. 522 pp.

RUSSIAN, bk, Margantsevye Mestorozhdeniya SSSR, 1967.

CFSTI TT 69-55030

Microorganisms and Organic Matter of Soils, by M.M. Kononova, 306pp.

RUSSIAN, bk, Mikroorganizmy i Organiches-koe Veshchestvo Pochv, 1961.

CFSTI TT 69-55087

Collected Papers of Soviet Antarctic Expeditions, by A.B. Aver'yanov, 266pp.

RUSSIAN, bk, Nauchnye Rezul'taty Rabot Sovetskikh Antarkticheskikh Ekspeditsiy, 1968.

CFSTI TT 69-55085

Goals of West Siberian Petrochemistry Listed, by P. Sukhomlinov, 7 pp.

RUSSIAN, per, Neftyanik, Moscow, No 11, 1969, pp 6-8.

JPRS 50601

Soils of Eastern Siberia, by E.N. Ivanova 223pp.

RUSSIAN, bk, O Pochvakh Vostochnoi Sibiri, 1963.

CFSTI TT 69-55073

Oases in Antarctica, by A.V. Solopov, 146 pp.

RUSSIAN, bk, Oazisy v Antarktide, 1967

CFSTI TT 68-50490

On Information and Distribution of the Low-Salinity Water Interlayer in the Northern Part of the Pacific Ocean, by V. I. Kuksa, 27 pp.

RUSSIAN, per, Okeanologiya, Vol 2, No 5, 1962, pp 769-782.

Dept of Interior

A-36-Feb 1970-No-85

On Loan

Underwater Visibility of Objects in Open Water Basins, by O. A. Sokolov. 13 pp.

RUSSIAN, per, Okeanologiya, Vol 4, No 4, 1964, pp 564-573.

NAV/NOO/Tran-259-70

Optics of Photographic and Aerial Photogrammetric Instruments (Chapter VII), by L. S. Urmakher.

48 pp.

RUSSIAN, rpt, Optika Fotograficheskikh i Aerofoto-grammetricheskikh Priborov, 1965, pp 159-198.

AIR/FTD/MT-24-443-69

Diamond Harder than Diamond, by S. Batsanov.

RUSSIAN, np, Pravda, 18 December 1969, p. 3

*RAND INT-70-2

Anticyclonic Circulation of Ice in the Arctic Basin and the Drift of North Pole-8 Station, by Z. M. Gudkovich.

RUSSIAN, per, Problemy Arktiki i Antarktiki, Vol 23, 1966, pp 5-10.

Dept of Navy Noo Trans 483

Bibliography on Rare-Earth Elements, (Including Scandium and Yttrium) by K.E. Mironov, L.A. Chernikova, 426pp.

RUSSIAN, bk, Redkozemel'nye Elementy (Vkyuchaya Skandii i Ittrii) Bibliograficheskii Ukazatel' (1958-1962gg.)

1964

CFSTI TT 69-55080

AEC-tr-6981

UC-4

Collection of Papers on Soil Science of the Estonian Agricultural Academy, 155pp

RUSSIAN, bk, Sbornik Nauchnykh Trudov Estonskoi Sel'skokhozyaistvennoi Akademii Trudy po Pochvovedeniyu, No 49, 1966.

CFSTI TT 69-55071

Draft Principles of Water Legislation Reviewed, by O. Kolbasov, 6 pp.

RUSSIAN, np, Sel'skaya Zhizn', Moscow, 13 May 1970, p 3.

JPRS 50695

Analysis of the Cavity Development in Underground Explosions, by V. N. Rodionov, 37 pp.

RUSSIAN, bk, Seysmika i Voronki Vybrosa pri Podzemnykh Vzryvakh, 1968, pp 5-23. Vzryvnoye Delo No 64/21.

AEC/UCRL-Tr-10441-70

Modeling Explosive Excavation in a Laboratory Vacuum Apparatus, by V.V. Adushkin, 33 pp.
RUSSIAN, bk, Seysmika i Voronki Vybrosa pri Podzemnykh Vzryvakh, 1968, pp 24-41. Vzryvnoye Delo No 64/21.
AEC/UCRL-Tr-10441-70

The Mechanism of Formation and Similarity of the Apparent Craters in Explosive Excavation in Soils, by A. N. Romashov, 17 pp.
RUSSIAN, bk, Seysmika i Voronki Vybrosa pri Podzemnykh Vzryvakh, 1968, pp 42-56. Vzryvnoye Delo No 64/21.
AEC/UCRL-Tr-10441-70

Determination of Energy Output in Explosive Excavation and Some Questions of Crater Similarity, by A. N. Romashov, 8 pp.
RUSSIAN, bk, Seysmika i Voronki Vybrosa pri Podzemnykh Vzryvakh, 1968, pp 57-64. Vzryvnoye Delo No 64/21.
AEC/UCRL-Tr-10441-70

Methods and Some Results of Recording Surface Movement in Underground Explosions Using Optical and Seismic Methods, by V. V. Garmov, 51 pp.
RUSSIAN, bk, Seysmika i Voronki Vybrosa pri Podzemnykh Vzryvakh, 1968, pp 65-92.
AEC/UCRL-Tr-10441-70

Development of Shock Waves in Explosions in Soil close to the Ground Surface, by V. B. Lebedev, 16 pp.
RUSSIAN, bk, Seysmika i Voronki Vybrosa pri Podzemnykh Vzryvakh, 1968, pp 93-108. Vzryvnoye Delo No 64/21.
AEC/UCRL-Tr-10441-70

Directed Shock Action of Dispersed Row-Charge Explosions, by B. G. Rulev, 20 pp.
RUSSIAN, bk, Seysmika i Voronki Vybrosa pri Podzemnykh Vzryvakh, 1968, pp 192-211. Vzryvnoye Delo No 64/21.
AEC/UCRL-Tr-10441-70

Thermal Aerial Survey of Kamchatka Volcanoes, by B. V. Shilin, N. A. Gusev. 15 pp.
RUSSIAN, per, Sovetskaya Geologiya, Vol 12, No 5, 1969, pp 139-147.
AIR/FTD/HT-23-63-70

Results of Expedition Investigations of the Drift and Dynamics of the Ice Cover of the Arctic Basin During the Spring of 1961, by A.V. Bushev.
RUSSIAN, per, Trudy Arkticheskiy i Antarkticheskiy Nauchno-Issledovatel'skiy Institut, Leningrad. Vol 257, 1967, pp. 26-44.
*RAND IT-70-1

Drift Circulation in the Zone of the Subpolar Hydrological Front, by V. M. Gruzinov, 8 pp.
RUSSIAN, Trudy Gosudarstvennogo Okeanog. Inst., No 79, 1966, pp 117-122.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 63
On Loan

Vertical Circulation of Water in the North Tropical and Equatorial Zones of the Pacific Ocean, by R. R. Belevich. 65 pp.
RUSSIAN, per, Trudy Gosud Okean Inst, Vol 90, 1967, pp 3-61.
Dept of Interior
BCF/OFF
A-37-March 1970-No 75
On Loan

Vertical Circulation of Water in the North Tropical and Equatorial Zones of the Pacific Ocean, by R. R. Belevich.
RUSSIAN, per, Trudy Gos Okean Inst., Vol 90, 1967.
Dept of Navy N00 Trans 464

Some Results of the Investigation of Black Sea Interstitial Water, by O. V. Shishkina. 15 pp.
RUSSIAN, per, Trudy Inst Okeanologii, Vol 54, 1962, pp 47-57.
Dept of Interior
BCF/OFF
A-37-March 1970-No 17
On Loan

Macrophytes of the Sakhalin Sea Coast, by V. B. Vozzhinskaya.
RUSSIAN, per, Trudy Instituta Okeanologii, Vol 69, 1964.
Dept of Navy N00 Trans 462

Hydrological Conditions in the Norwegian Sea in the Period of Summer Feeding of Herring From 1958 to 1963, by V. V. Penin, 15 pp.
RUSSIAN, per, Trudy PINRO, No 17, 1966, pp 55-67.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 54
On Loan

Seventh, Eighth, and Ninth Continental Expeditions.
RUSSIAN, per, Trudy Sovetskoy Antarkticheskoy Glav
Upravleniye Gidrometeorologicheskoy Sluzhby, Vol 52,
1968, 267 pp.

*CFSTI TT 70-50099

Rational Exploitation of the Food Resources of the
Seas and Oceans,
RUSSIAN, per, Vestnik Ak Nauk SSSR, No 2, 1968,
pp 3-8.

Dept of Interior

BCF/OFF

A-37-March 1970-No 124

On Loan

A Preliminary Investigation on the Application
of T-S Diagrams for a Quantitative Analysis
of Watermasses in Shallow Water Areas, by
Mao Han-li, Jen Yun-wu, 29 pp.

CHINESE, per, Hai-yang Yu Hu-chao, Peking,
Vol 6, No 1, 1964, pp 1-21.

JPRS 50624

Further Investigation on the Form of Wind Wave
Spectrum, by Wang Ping-hsiang, 23 pp.

CHINESE, per, Hai-yang Yu Hu-chao, Peking,
Vol 6, No 1, Feb 1964, pp 23-37.

JPRS 50564

Character of Energy Exchange Between Sea and
Atmosphere of North Pacific, by Ch'en En-Chiu,
Chang P'i-yuan, 19 pp.

CHINESE, per, Hai-yang Yu Hu-chao, Peking, Vol 6,
No 4, Nov 1964, pp 350-363.

JPRS 50675

Advance in Comparative Biochemistry of Marine
Bioluminescence, by Hsueh T'ing-yao, 20 pp.

CHINESE, per, Hai-yang Yu Hu-chao, Peking,
Vol 6, No 4, 1964, pp 423-432.

JPRS 50564

Marine Geochemistry of Elements, by
Ku Hung-k'an, 21 pp.

CHINESE, per, Hai-yang Yu Hu-chao, Peking,
Vol 7, No 1, 1965, pp 73-83.

JPRS 50564

Propagation of Water Hammer Through a Bifurcation,
by Albert Schlag.

FRENCH, per, Le Genie Civil, Vol 145, No 4, 1969,
pp 275-277.

*CFSTI TT 70-58136

Perviousness of Rock Fill Breakwaters to
Periodic Gravity Waves, by B. Le Mehaute, 39 pp.

FRENCH, per, La Houille Blanche, No 6,
Dec 1957, pp 903-919.

Dept of Navy NIC Trans 3043

Place and Future of Aquaculture in the French and
World Fisheries, by Jehan Mousnier, 17 pp.

FRENCH, per, La Pêche Maritime, No 48(1099), 1969,
pp 739-742.

Dept of Interior

BCF/OFF

A-36-Feb 1970-No 137

On Loan

Possibilities and Limits of Elementary Models
Concerning the Budget of Substances in Lakes,
by R. A. Vollenweider. 53 pp.

GERMAN, per, Archiv fur Hydrobiologie, Vol 66,
1969, pp 1-36.

Dept of Interior

BCF/OFF

A-37-March 1970-No 57

On Loan

Algal Remains in Lake Sediments - A Contribution
to the Development History of Lakes and the
Surrounding Regions, by N. V. Krode. 76pp.

GERMAN, per, Archiv fuer Hydrobiologie Ergebnisse
der Limnologie, No 3, 1966, pp 1-38.

Dept of Interior

BCF/OFF

A-37-March 1970-No 53

On Loan

Diatoms in Lake Sediments, by A. Yuse. 61 pp.

GERMAN, per, Archiv Fur Hydrobiologie, Ergebnisse
der Limnologie, No 4, 1966, pp 1-32.

Dept of Interior

BCF/OFF

A-37-March 1970-No 58

On Loan

Notes on Definition of Safety of Landslides by
the Laminar Method, by E. Frank.

GERMAN, per, Die Bautechnik, Vol 44, No 12, 1967,
pp 415-418.

*USDI/BR TT 70-58174

New Studies on the Necessity of the Directing
Influence of the Force of Gravity for Develop-
ment, by O. Schultze. 6 pp.

GERMAN, per, Sitz-Ber Physik-Med Ges Zu Wuerzburg,
No 3, 1897,

NASA TT F-12,580

Scientific
Earth Sciences & Oceanography (Contd)

Experimental Inquiries Into the Formation of Mud in Some Lakes of Switzerland - Lakes either in Their Natural State or Affected by Civilization, by E. A. Thomas. 35 pp.
GERMAN, rpt, Reprint from Wasser und Abwasser, Vienna, 1963, pp 1-21.
Dept of Interior
BCF/OFF
A-37-March 1970-No 55
On Loan

Water Capacity of Mountain Streams, by K. Cecen.
GERMAN, per, Die Wasser-Wirtschaft, Vol 57, No 10, 1967, pp 359-363.
*CFSTI TT 70-58158

Flood Waves in Open and Closed Channels, by W. Bauch.
GERMAN, per, Die Wasser-Wirtschaft, Vol 58, No 1, 1968, pp 11-15.
*CFSTI TT 70-58163

Sedimentation in Mountain Reservoirs, by F. Bauer, J. Burz.
GERMAN, per, Die Wasser-Wirtschaft, Vol 58, No 4, 1968, pp 114-121.
*CFSTI TT 70-58164

Initial Stage of Destruction of Equilibrium of Rock Masses Subjected to Scouring, by Carlo Lotti.
ITALIAN, per, L'acqua, Vol 45, No 4, Jul-Aug 1967, pp 104-107.
*CFSTI TT 70-58127

Inland Water Eutrophication by Phosphorous, by R. A. Vollenweider. 47 pp.
ITALIAN, per, La Rivista Italiana delle Sostanze Grasse, Vol 45, No 2, 1968, pp 99-107.
Dept of Interior
BCF/OFF
A-37-March 1970-No 56
On Loan

Partition of the Continental Shelf in the Southern Part of the Baltic Sea, by J.W. Kufel, 1pp.
POLISH, per, Technika i Gospodarka Morska, vol 20, 1970, pp. 134.
*USDI/BCF TT 70-55133

Steppes, Prairies and Savannas of South America, by Jorge Chabataroff. 17 pp.
SPANISH, per, Revista de la Facultad de Humanidades y Ciencias, Montevideo, No 22, 1965 pp 127-144.
JPRS 50555

Scientific
Earth Sciences & Oceanography (Contd)

Lamination of Freshet Flows and Artificial Overflows, by J. Gernandez-Moreno.
SPANISH, per, Revista de Obras Artificiales, Vol 115, No 3037, May 1968, pp 327-338.
*CFSTI TT 70-58146

Forest Soils, by Prasoet Phothipak.
THAI, per, The Vansarn, Vol 27, No 3, Jul-Sept, 1969, pp 253-261.
ACSI J-8242
ID 2204006670

Forest Soils, by Prasoet Phothipak.
THAI, per, The Vansarn, Vol 27, No 4, Oct-Dec, 1969, pp 329-336.
ACSI J-8243
ID 2204006770

The Ill Effects of Squatters on Reserved Forest Land, by Buntham Norachin.
THAI, per, The Vansarn, Vol 27, No 4, Oct-Dec, 1969, pp 372-376.
ACSI J-8243
ID 2204006770

Electronics & Electrical Engineering

A Method of Coding the States of Finite Automata from the Point of View of Minimizing Equipment Expenditures, by Z. L. Rabinovich, Yu. V. Kapitonova, et al. 11 pp.
RUSSIAN, rpt, AN LatSSR. Inst Elektroniki i Vych Tekh. Teoriya Diskretnykh Avtomatov, 1967, pp 33-40.
AIR/FTD/MT-24-08-70

The Application of Correcting Codes to Improve the Reliability of Combination Logic Circuits, by T. A. Frantsis. 27 pp.
RUSSIAN, rpt, AN LatSSR. Inst Elektroniki i Vychisl Tekh. Teoriya Diskretnykh Avtomatov, 1967, pp 201-225.
AIR/FTD/HT-23-152-70

Appraisal of the Possibility of Operation of an Azimuth-Mounted Optical Telescope with an Electronic Digital Control System, by Ye. M. Neplokhov. 11 pp.
RUSSIAN, rpt, AN SSSR. Inst Elektromekh Tsifroyoye Upravleniye v Sistemakh Avtomatiki, 1968, pp 173-182.
AIR/FTD/MT-24-49-70

Multicycle Magnetic-Semiconductor Memory and Logic, by Ye. A. Gurvits, A. Ya. Uskov. 14 pp.
RUSSIAN, rpt, AN SSSR. Inst Problem Peredachi Informatsiy. Sintez Diskretnykh Avtomativ i Upravlyayushchikh Ustroystv, 1968, pp 48-58.
AIR/FTD/MT-23-83-70

The State and Principal Problems of the Automation of Process Control on the Basis of Computer Engineering, by S. F. Khrapchenko. 13 pp.
RUSSIAN, rpt, AN SSSR. Otdeleniye Mekh i Protsessov Upravleniya. Perspektivy Primeneniya Vychislitel'noy Tekh dlya Upravleniya v Prom i Transporte: Doklady i Soobshcheniya, 1968, pp 33-44.
AIR/FTD/HT-23-628-69

On Interfacing a Digital Computer with a Structurally Uniform Logic Unit, by A. P. Vishnevskiy. 10 pp.
RUSSIAN, per, AN SSSR. Sibirskoye Otdeleniye Inst Matematiki Vychisl Sistemy, No 26, 1967, pp 57-65.
AIR/FTD/MT-24-388-69

The "Doza" Electronic Analog Computer for Estimating Dose Fields in an Irradiated Person's Body, by V. B. Ushakov, V. A. Golovan, et al. 10 pp.
RUSSIAN, rpt, Analogovaya i Analogo-Tsifrovaya Vychislitel'naya Tekhnika, Sbornik Statey, 1968, pp 80-89.
AIR/FTD/MT-24-319-69

The "Al'Fa" (EMSS-8) Specialized Computer, by A. Ye. Stepanov, O. N. Tokareva.
RUSSIAN, per, Analogovaya i Analog-Tsifrovaya Vychislitel'naya Tekhnika Sbornik Statey, No 2, 1968, pp 202-209.
AIR/FTD/HT-23-81-70

Principal Applications of Thyristors in Computer Technology, by V. A. Gorokhov, M. B. Shchedrin, et al,
RUSSIAN, per, Analogovaya i Analog-Tsifrovaya Vychislitel'naya Tekhnika Sbornik Statey, No 2, 1968, pp 258-267.
AIR/FTD/HT-23-81-70

Stub and Frame Antennas for Flight Vehicles, by G. B. Reznikov, 23 pp.
RUSSIAN, bk, Antenny Letatel'nykh Apparatov, Moscow, 1967, pp 274-295.
JPRS 50690

Development and Method of Simulation of Certain Algorithms of Normalization of Plane Patterns on a Computer (ETsVM), by B. V. Anisimov, V. K. Zlobin. 17 pp.
RUSSIAN, per, Avtomaticheskoye Upravleniye i Vychisl Tekhnika, No 9, 1968, pp 199-212.
AIR/FTD/MT-24-35-70

"Sirius" Input Language for an Automatic Programming System, by I. R. Aksel'rod, L. F. Belous. 16 pp.
RUSSIAN, per, Doklady Seminar "Avtomatizatsiya Programirovaniya, No 3, 1967, pp 44-62.
AIR/FTD/HT-23-114-70

Direct Search for Optimal Transients in Objects with One Control Input, by Dzh. A. Avetisyan, Ye. B. Dement'yeva. 17 pp.
RUSSIAN, per, Elektrichestvo, No 8, 1968, pp 75-80.
AIR/FTD/HT-23-623-69

Calculating the Main Dimensions of a Synchronous Generator for Operating Into an Impulse Load, by A. I. Bertinov, S. R. Milyurin. 14 pp.
RUSSIAN, per, Elektrichestvo, No 12, 1968, pp 29-34.
AIR/FTD/HT-23-604-69

Design Calculations for the Armature Winding of and Electrical Machine with a Smooth Armature, by S. S. Kiselev.
RUSSIAN, per, Elektrotehnika, No 9, 1969, pp 32-34.
C.E. Trans 5344

Static Multipole Acyclic Generator with a Superconducting Shield, by V. P. Kartsev, I. M. Yegorov. 15 pp.
RUSSIAN, per, Izv VUZ Elektromekhanika, No 6, 1966, pp 595-605.
AIR/FTD/MT-24-38-70

Calculating the Parameters of a Memory Subsystem with an MOS Transistor of a Single Type, by S. C. Basiladze, 15 pp.
RUSSIAN, per, Izvestiya Vusov SSSR Radioelektronika, Moscow, Vol 13, No 1, 1970, pp 3-11.
JPRS 50654

Scientific
Electronics & Electrical Engineering
(Contd)

MHD Methods of Obtaining Electrical Energy. 6 pp.
RUSSIAN, rpt, Magnitogidrodinamicheskiy Metod
Polucheniya Elektroenergii, 1968, pp 2-6.
AIR/FTD/MT-24-294-69

A Device for Investigating and Checking the Magnetic
Memory Elements of Thin-Film Matrices, by
A. D. Bekh, V. M. Korsunskiy, et al, 8 pp.
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya
Upravleniya, No 6, 1967, pp 28-31.
AIR/FTD/MT-24-26-70

A Memory Unit with Nondestructive Readout, by
F. N. Zykov, V. M. Korsunskiy, et al. 8 pp.
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya
Upravleniya, No 3, 1968, pp 37-40.
AIR/FTD/MT-24-452-69

Expansion of the System Capabilities of Standard
Production Computers, by A. A. Morozov,
A. A. Kobozev. 6 pp.
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya
Upravleniya, No 5, 1968, pp 51-53.
AIR/FTD/HT-23-92-70

Direct Access Storage Device with Full Currents,
by Yu. S. Yakovlev. 10 pp.
RUSSIAN, per, Mekhanizatsiya i Avtomatizatsiya
Upravleniya, No 6, 1968, pp 46-49.
AIR/FTD/HT-23-93-70

Replacing Manual Labor by Machines Discussed,
by P. I. Moiseyev, 12 pp.
RUSSIAN, per, Mekhanizatsiya Stroitel'stva,
Moscow, No 4, 1970, pp 6-9.
JPRS 50562

Uniform Integrated Circuit Modulus, by I. P. Yegorov
N. F. Cherenkova. 10 pp.
RUSSIAN, mono, Moscow. Institut Avtomatiki i Tele-
mekhaniki (Tekhnicheskoy Kibernetiki). Teoriya i
Sredstva Avtomatiki, 1968, pp 341-346.
AIR/FTD/MT-24-34-70

Simpoliz-64 - A Language for Programming in
Symbolic Notations, by Ye. A. Zhogolev,
N. B. Lebedeva. 27 pp.
RUSSIAN, per, Moscow. Universitet. Vychislitel'
nyy Tsentr Sbornik Rabot, No 9, 1967, pp 66-85.
AIR/FTD/MT-24-02-70

Scientific
Electronics & Electrical Engineering
(Contd)

Long-Distance Power Transmission. Parameters and
Transients, by O. V. Ol'shevskiy. 110 pp.
RUSSIAN, bk, Parametry i Perekhodnye Rezhimy dal'
nikh Elektropredach, 1966.
CFSTI TT 69-55035

Design and Manufacturing Technology of the
Inductosyn by Donat Alekseyevich Bychatin,
I. Ya. Gol'dman, 6 pp.
RUSSIAN, bk, Povorotnyy Induktosin, Leningrad,
1969.
JPRS 50607

The Organization of the Waiting Discipline in
Mass-Servicing Systems Using the Model of the
Collective Response of Automata, by
V. I. Varshavskiy, M. V. Meleshina, et al. 7 pp.
RUSSIAN, per, Problemy i Peredachi Informatsiy,
Vol 4, No 1, 1968, pp 73-76.
AIR/FTD/HT-23-94-70

Limits of Applicability of the Concept of
"Equivalent Radius" of the Earth, by
V. A. Andriyanov.
RUSSIAN, per, Radiotekhnika i Elektronika, Vol 14,
No 2, 1969, pp 195-200.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 83
On Loan

Evaluating the Instruction Format of a Control
Computer, by V. A. Popov.
RUSSIAN, per, Samoletostroyeniye i Tekhnika
Vozdushnogo Flota, No 11, 1967, pp 49-51.
AIR/FTD/HT-23-134-70

Analog Computer, Specialized for Processing the
Results of Measurements, by V. I. Katashkin,
I. K. Ogorodova. 6 pp.
RUSSIAN, rpt, Sredstva Analogovoy i Analogo-
Tsifrovoy Vychisl Tekhniki, 1968, pp 97-100.
AIR/FTD/MT-24-29-70

Electron-Tube-Type Operational Amplifiers for
an Analog Computer Complex, by
D. Ye. Polonnikov, R. N. Chernychev. 13 pp.
RUSSIAN, rpt, Sredstva Analogovoy i Analogo-
Tsifrovoy Vychisl Tekhniki, 1968, pp 106-115.
AIR/FTD/MT-24-53-70

Experience with the Design and Operation of Analog-Digital Computing Complexes Based on Small, Medium, and Large Digital Computers, by V. S. Balakirev, B. S. Brio, et al. 7 pp.
RUSSIAN, rpt, Sredstva Analogovoy i Analogo-Tsifrovoy Vychislitel'noy Tekhniki, 1968, pp 175-179.
AIR/FTD/MT-23-84-70

Standardized Series of Converters, by G. V. Moskalenko, G. N. Sabayev. 11 pp.
RUSSIAN, rpt, Sredstva Analogovoy i Analogo-Tsifrovoy Vychisl Tekhniki, 1968, pp 226-233.
AIR/FTD/MT-24-45-70

Determination of Main Engine Output at an Early Design Stage, by V. A. Lesyukov,
RUSSIAN, per, Sudostroenie, No 3, 1969, p 13-.
NLL Ref: 9022.065 (3137)

Influence of Television Channel and Camera on Image Uniformity, by A. Ye. Gershberg, N. N. Mikhaylov-Teplov.
RUSSIAN, per, Tekh Kino i Televideniya, No 4, 1967, pp 30-33.
AIR/FTD/MT-24-365-69

Calculation of Pulse Resolving in Television, by L. I. Khromov, V. I. Resin.
RUSSIAN, per, Tekh Kino i Televideniya, No 4, 1967, pp 34-39.
AIR/FTD/MT-24-365-69

A New Photoelectric Converter - the Scanistor, by V. L. Kreytser, K. F. Berkovskaya.
RUSSIAN, per, Tekh Kino i Televideniya, No 4, 1967, pp 40-46.
AIR/FTD/MT-24-365-69

Small-Frame Method in Television Space System, by I. A. Rosselevich, L. I. Khromov.
RUSSIAN, per, Tekhnika Kino i Televideniya, No 9, 1967, pp 13-18.
AIR/FTD/MT-24-370-69

Permissible Values of Distortion in Cinematographic Systems, by Ye. B. Galkin, S. M. Kozlovskiy, et al.
RUSSIAN, per, Tekhnika Kino i Televideniya, No 9, 1967, pp 29-32.
AIR/FTD/MT-24-370-69

Methods of Scale Control of Parameters on a Television Screen, by S. Ye. Koganer.
RUSSIAN, per, Tekhnika Kino i Televideniya, No 9, 1967, pp 43-48.
AIR/FTD/MT-24-370-69

Experimental Investigation of a System of Automatic Focusing of Television Cameras, by G. I. Byalik, B. S. Timofeyev.
RUSSIAN, per, Tekhnika Kino i Televideniya, No 2, 1968, pp 42-46.
AIR/FTD/MT-24-337-69

Television Installation with Two-Dimensional Aperture, Correction, by I. N. Pustynskiy, V. F. Kononov.
RUSSIAN, per, Tekhnika Kino i Televideniya, No 2, 1968, pp 55-60.
AIR/FTD/MT-24-337-69

Automatic Recording of a Video Waveform, by M. I. Krivosheyev, R. L. Mareyn. 12 pp.
RUSSIAN, per, Tekh Kino i Televideniya, No 3, 1968, pp 52-57.
AIR/FTD/MT-23-347-69

Sharpness of an Image Transmitted by Stroboscope to an Image Orthicon, by G. N. Gryazin. 10 pp.
RUSSIAN, per, Tekhnika Kino i Televideniya, No 11, 1968, pp 68-71.
AIR/FTD/MT-24-343-70

Accurate Phase Shifting Devices for the Region of Infralow Frequencies from 0.001 to 100 Hertz, by Ye. D. Koltik, S. A. Kravchenko, 20 pp.
RUSSIAN, per, Trudy Institutov Goskomitet, No 82(142), pp 67-82.
NAV/NIC/Tran-3040-70

Some Results of Experimental Investigation of a Detector of Image Element Directions, by V. P. Romanov, O. L. Fedorets, et al. 18 pp.
RUSSIAN, per, Trudy Vses Konferentsiya po Informatsionno-Poiskovym Sistemam i Avtomatizirovannoy Obrabotke Nauchno-Tekhnicheskoy Informatsiy, 3D, Moscow, 1966, Vol 3, 1967, pp 85-96.
AIR/FTD/MT-23-82-70

A Special Purpose Computer for Solving the Transport Problems of Linear Programming, by A. N. Klepikova. 8 pp.
RUSSIAN, rpt, Trudy Vses Konf po Prim Elekt Mat Mashin v Stroitel'noy Mekh, 4th Kiev, 1965. Prim Elekt Vychisl Mashin v Stroitel'noy Mekh, 1968, pp 457-462.
AIR/FTD/MT-24-41-70

Scientific
Electronics & Electrical Engineering
(Contd)

Construction of Circuits of the RER-2 Computer,
by S. A. Ginzburg.
RUSSIAN, per, Trudy Vses Nauchno-Issled Inst
Elektroenergetiki, No 27, 1967, pp 5-9.
AIR/FTD/MT-24-407-69

Multichannel Analog Memory, by B. V. Norozinets,
T. S. Yakovleva.
RUSSIAN, per, Trudy Vses Nauchno-Issled Inst
Elektroenergetiki, No 27, 1967, pp 24-40.
AIR/FTD/MT-24-407-69

A Program Control Unit for the RER-2 Computer,
by B. V. Borozinets.
RUSSIAN, per, Trudy Vses Nauchno-Issled Inst
Elektroenergetiki, No 27, 1967, pp 47-54.
AIR/FTD/MT-24-407-69

Peripheral Equipment of the RER-2 Computer, by
B. V. Borozinets, by Yu. Ya. Lyubarskiy.
RUSSIAN, per, Trudy Vses Nauchno-Issled Inst
Elektroenergetiki, No 27, 1967, pp 65-73.
AIR/FTD/MT-24-407-69

Stud-Anode Contact Resistance and Voltage Losses
in a Self-Baking Anode, by A. A. Dmitriyev.
RUSSIAN, per, Tsvet Metal, Vol 40, No 2, 1967,
pp 55-59.
ATS RJ-5433

An Investigation of the Dependence of Anode Quality
on the Number and Diameter of Anode Spikes in
Electrolytic Aluminum Reduction Cells, by
A. A. Dmitriyev.
RUSSIAN, per, Tsvet Metal, Vol 40, No 4, 1967,
pp 47-52.
ATS RJ-5440

Voltage Losses in Prebaked Anodes of Aluminum
Reduction Cells, by Ye. G. Komers, A. M. Tsyplakov.
RUSSIAN, per, Tsvet Metal, Vol 42, No 7, 1969,
pp 49-52.
ATS RJ-5439

Effect of the Layer of Anode Paste on the Quality
of the Self-baking Anodes of Aluminum Reduction
Cells, by A. A. Dmitriyev.
RUSSIAN, per, Tsvet Metal, Vol 42, No 10, 1969,
pp 37-38.
ATS RJ-5431

Scientific
Electronics & Electrical Engineering
(Contd)

Optimum Length of the Anode Spikes in Aluminum
Reduction Cells with Horizontal Contact Spikes,
by A. N. Smorodinov.
RUSSIAN, per, Tsvet Metal, Vol 42, No 11, 1969,
pp 28-29.
ATS RJ-5430

Mechanism of the Reaction Between Anode and Cathode
Products, by A. A. Revazyan,
RUSSIAN, per, Tsvet Metal, Vol 42, No 12,
1969, pp 35-37.
ATS RJ-5451

Program for Solving a System of Linear Equations
on "The Minsk-222", by L. V. Golovyashkina,
Yu. G. Kosarev. 23 pp.
RUSSIAN, per, Vychislitel'nyye Sistemy. Sbornik⁺
Trudov, No 24, 1967, pp 55-75.
AIR/FTD/MT-24-438-69

Use of Computers on USSR Railways, by
P. K. Lemeschuk, V. F. Sokolov, 10 pp.
RUSSIAN, per, Zheleznodorozhnyy Transport, Moscow,
No 1, Jan 1970, pp 40-47.
JPRS 50636

Computerized Transport Management, 6 pp.
RUSSIAN, per, Zheleznodorozhnyy Transport, Moscow,
No 1, Jan 1970, pp 78-80.
JPRS 50636

Failure of a 200 MW Turbo-Set Governor System,
by W. Obalenski.
CZECH, per, Energetyka, Vol 23, Aug 1969,
pp 260-264.
C.E. Trans 5043

Medium Voltage Spark Gaps with Low Dispersion,
by B. Beaumont.
FRENCH, per, EdF. Bull de la Direction des Etudes
et Recherches, Series B, No 1, 1969, pp 87-100.
C.E. Trans 5285

Problems of High-Voltage DC Transmission, by
H. Schulze.
FRENCH, per, Elektrizitatswirtschaft, No 10,
1967, pp 237-242.
*USDI/BR TT 70-58176

Evolution of Selective Protection Against Short
Circuits, by M. Walter.
FRENCH, per, Elektrizitatswirtschaft, No 11,
1967, pp 317-323.
*USDI/BR TT 70-58175

Scientific
Electronics & Electrical Engineering
(Contd)

Control and Purification of Insulating Oil in Electrical Engineering - Devices for Air-Tightness and Drying for Insulating Oils for Large Transformers, by O. Hutzl.
FRENCH, per, Elektrizitätswirtschaft, No 12, 1967, pp 345-347.
*USDI/BR TT 70-58177

The Processing of Measurements in a Computer, by A. Chapelot, P. Moinereau.
FRENCH, per, Energie Nucleaire, Vol 10, No 8, Dec 1968, pp 490-501.
C.E. Trans 5239

Representation of Infinite Points in Electric Analogs, by J. Hurtado.
FRENCH, per, Le Genie Civil, Vol 144, No 1, 1967, pp 48-50.
*CFSTI TT 70-58154

Application of the Powder Figures Method to the Study of Corona Discharge in Insulating Materials, by H. Bertein.
FRENCH, per, Rev Gen Elect, Vol 69, Sept 1960, pp 461-474.
C.E. Trans 5306

Loading Rules for Interconnection and Supply Transformers. Part 1. General Considerations on Preparing Rules for Transformer Loading, by B. Favez.
FRENCH, per, Rev Gen Elect, Vol 78, Jul-Aug 1969, pp 749-753.
C.E. Trans 5333

Loading Rules for Interconnection and Supply Transformers. Part 2. Definition and Justification of Thermal Limits for Determining the Rules for Transformers Loading, by F. Salgues.
FRENCH, per, Rev. Gen Elect, Vol 78, Jul-Aug 1969, pp 754-762.
C.E. Trans 5334

Loading Rules for Interconnection and Supply Transformers. Part 3. Practical Application of Loading Rules for Interconnection transformers, by H. Larrue.
FRENCH, per, Rev Gen Elect, Vol 78, Jul-Aug 1969, pp 763-768.
C.E. Trans 5335

Special Cases of Disturbance in H.V. Systems Due to Lightning, by A. Kunz.
GERMAN, per, Bull A.S.E., Vol 58, No 24, 1967, pp 1093-1095.
C.E. Trans 5250

Scientific
Electronics & Electrical Engineering
(Contd)

Discussion of Potentiokinetic and Potentiostatic Measuring Methods for Use in Corrosion Studies, by G. Herbsleb.
GERMAN, per, Corrosion Science, Vol 19, No 8, 1969, pp 615-629.
C.E. Trans 5280

Measurement and Evaluation of the Switching Noise of HV Air-Blast Circuit-Breakers, by H. Ambrosch, et al.
GERMAN, per, Elektrie, Vol 23, Sept 1969, pp 370-373.
C.E. Trans 5343

Color Quality of Light Sources, by W. Munch.
GERMAN, per, Elektrizitat, No 11, 1968, pp 312-317.
O. A. Trans. 382

Statistical Assessment of Lightning Arresters for Telecommunications Installations, by H. Fischer,
GERMAN, per, Elektrotechnische Zeit. B, Vol 17, No 15, 1965, pp 495-499.
NLL Ref: 9022.81 (2592)

The Elimination of Cross Voltages in the Protection of Telecommunications Lines Against Non-Uniform Effects by Means of Surge Diverters, by G. Tischer, and E. Wild,
GERMAN, per, ETZ - A, Vol 87, No 1, 1966, pp 9-16.
NLL Ref: 9022.81 (2575)

Effect of Transients Discrimination in Capacitive Voltage Transformers on the Direction Sensing of Distance Protection Relays, by M. Pohl, and H. Schroder,
GERMAN, per, ETZ - A, Vol 90, No 4, 1969, pp 84-88.
NLL Ref: 3774.5 (1911)

Power Electronics for the Excitation of Large Synchronous Generators, by M. Stiebler.
GERMAN, per, E.T.Z.-A, Vol 90, July 1969, pp 336-342.
C.E. Trans 5323

Physical Principles of A.C. Operated Electrostatic Precipitators, by H. Krug.
GERMAN, per, Luftverunreinigung, Oct 1969, pp 40-46.
C.E. Trans 5114

Scientific
Electronics & Electrical Engineering
(Contd)

The Risk of Damage to the Squirrel Cage of AC Induction Motors When Stationary, by W. Nurnberg. GERMAN, per, Maschinenschaden, Vol 42, No 2, 1969, pp 47-50.
C.E. Trans 5318

The Behavior of Inductive Displacement Transducers, by K. Felgner. GERMAN, per, Messtechnische Briefe, No 3, 1965, pp 2-4.
C.E. Trans 5255

Fully Electronic Telephone Switching Systems Using the Time Division Multiplex Method, by P. G. Fontolliet, GERMAN, per, P.T.T. Technische Mitt., No 9, 1967, pp 499-511.
NLL Ref: 9022.81 (2606)

Conductivity and Stability Investigations on the System $ZrO_2-YO_{1.5}-MgO$ (1), with a View to Its Application as a Solid Electrolyte in Fuel Cells, by B. Rohland, H.-H. Mobius. 15 pp. GERMAN, per, Saechsische Akademie der Wissenschaften, Leipzig. Mathematisch-Naturwissenschaftliche Klasse. Abhandlungen. Internationales Symposium Brennstoffelemente, Vol 49, No 5, 1968, pp 355-366.
AIR/FTD/HT-23-434-69

Electronic Protection Installations in Plug-in Units Techniques, by E. Zurowski, GERMAN, per, Siemens-Zeit., Vol 43, No 4, 1969, pp 379-381.
NLL Ref: 3774.5 (1909)

New Contributions to the Field of Electron, Ion and Plasma Beam Technology, by M. V. Ardenne. GERMAN, per, Technik, Vol 19, No 10, 1964, pp 673-684.
O.A. Trans 309

1968 Yearbook of Office Mechanization and Computer Technology, by Endre Hujber, 143 pp. HUNGARIAN, bk, Ugyvitelgepesitosi es Szamitastechnikai Evkonyv, 1968, Budapest, 1968, 170 pp.
JPRS 50647

Astronomical Navigation with a Digital Computer, Part I - Spherical Trigonometry, by M. Hirota, JAPANESE, per, Nihon Kokai Gakkaishi, Vol 36, No 1, 1967, p 59.
NLL Ref: 9022.065 (3098)

Scientific
Electronics & Electrical Engineering
(Contd)

Astronomical Navigation with a Digital Computer, Part II - Fourier Series Interpolation of Nautical Almanac Data, by M. Hirota, JAPANESE, per, Nihon Kokai Gakkaishi, Vol 37, July 1967, p 29.
NLL Ref: 9022.065 (3099)

Astronomical Navigation with a Digital Computer, Part III - Chebyshev Polynomial Interpolation of Nautical Almanac Data, by M. Hirota, JAPANESE, per, Nihon Kokai Gakkaishi, Vol 38, Dec. 1967, pp 87-
NLL Ref: 9022.065 (3100)

The Universal UMC-10 Computer (Construction, Organization, Programming), by Jerzy Szewczyk. 24 pp. POLISH, per, Politechnika. Zeszyty Naukowe. Elektryka, No 51, 1967, pp 5-28.
AIR/FTD/HT-23-33-70

The MM16 High-speed Digital Minimodulus (Micromodulus) Technique, by J. Bucki, Z. Maik, et al. 13 pp. POLISH, per, Prace Przemyslowy Inst Telekomunikacji, Vol 15, No 49, 1965, pp 81-88.
AIR/FTD/HT-23-512-69

Computers Seen as Speeding up the Economy, 8 pp. RUMANIAN, np, Scinteia, Bucharest, 27 Apr 1970, p 6.
JPRS 50643

General Concepts of the Accounting Computer CER-20, by T. Aleksic, M. Moncilovic. 7 pp. SERBO-CROATIAN, rpt, Jugoslovenska Konferencija o Elektronici, Telekomunikacijama, Automatizaciji i Nuklearnoj Tehnici, 10th, Belograd, 1965. Zbornik Materijala. Belograd, 1966., 1966, pp 154-158.
AIR/FTD/HT-23-02-70

Energy Conversion (Non-Propulsive)

Checking Turbine Blade Erosion by Taking Impressions, by M. B. Yavel'skiy. RUSSIAN, per, Elekt Stantsiy, Vol 40, July 1969, pp 82-83.
C.E. Trans 5057

Scientific
Energy Conversion (Non-Propulsive)
(Contd)

Power Minister Discusses Power Industry Status,
by P. S. Neporuzhniy, 7 pp.
RUSSIAN, per, Elektricheskiye Stantsii, Moscow,
No 4, 1970, pp 2-4.
JPRS 50695

Progress, Status of Electrification Outlined,
by A. M. Nekrasov, M. A. Sarkisov, 14 pp.
RUSSIAN, per, Elektricheskiye Stantsii, Moscow,
No 4, 1970, pp 10-14.
JPRS 50695

Ways to Improve Thermification Examined, by
Ye. Ya. Sokolov, 14 pp.
RUSSIAN, per, Elektricheskiye Stantsii, Moscow,
No 4, 1970, pp 20-25.
JPRS 50695

Electric Power Engineering Development Analyzed,
by G. V. Aleksenko, 13 pp.
RUSSIAN, per, Elektrichestvo, Moscow, No 4, 1970,
pp 1-10.
JPRS 50699

Free Vibrations in a Turbo-Generator Stator,
by Ye. A. Rybakova.
RUSSIAN, per, Elektrotehnika, Vol 39, No 6,
1968, pp 46-51.
NLL Ref: 0022.31 (4334)

Kamkabel' Cable Plant Production Praised,
by N. I. Ktitarev, 6 pp.
RUSSIAN, per, Elektrotehnika, Moscow, No 4,
1970, pp 22-24.
JPRS 50699

Replacement of TET's Boiler Plants Discussed,
by N. M. Markov, N. S. Rassudov, 11 pp.
RUSSIAN, per, Energomashinostroyeniye, Leningrad,
No 3, 1970, pp 4-7.
JPRS 50695

Temperature Rise in the End Region of a 500 MW
Turbine Generator with Water-cooled Windings,
by I. M. Postnikov.
RUSSIAN, per, Energetik, No 1, 1969, pp 3-6.
C.E. Trans 5326

Thyristor Recuperative Electric Locomotive
Tested, by L. Kapustin, 5 pp.
RUSSIAN, np, Gudok, Moscow, 21 Mar 1970, p 2.
JPRS 50583

Scientific
Energy Conversion (Non-Propulsive)
(Contd)

USSR Gas Industry's Goals, Needs Traced, by
Yu. I. Bokserman, 10 pp.
RUSSIAN, per, Naftyanik, Moscow, No 2, 1970,
pp 6-10.
JPRS 50601

Future Sources of Electric Power Examined, by
A. Kurbayev, N. Shalamov, 8 pp.
RUSSIAN, per, Promyshlennost' Belorussii, Minsk,
No 3, 1970, pp 78-80.
JPRS 50664

Slow Progress on Power, Gas Projects Deplored,
by I. Vorontsov, 5 pp.
RUSSIAN, np, Stroitel'naya Gazeta, Moscow,
24 Apr 1970, p 2.
JPRS 50601

Scientists Discuss Future of Power Engineering,
by A. A. Beschinskiy, 13 pp.
RUSSIAN, per, Teploenergetika, Moscow, No 4, 1970,
pp 5-8.
JPRS 50695

Future of Power Industry in USSR Outlined, by
N. M. Markov, S. A. Zykov, 14 pp.
RUSSIAN, per, Teploenergetika, Moscow, No 4,
1970, pp 14-17.
JPRS 50695

Temperature Control of Superheated Steam Discussed,
by B. I. Shmukler, B. Ya. Direktor, 9 pp.
RUSSIAN, per, Teploenergetika, Moscow, No 4, 1970,
pp 18-21.
JPRS 50695

Damage to a 150 MVA Turbo-generator, by
Z. Olszewski.
CZECH, per, Energetyka, Vol 23, Apr 1969,
pp 115-118.
C.E. Trans 5101

Typical Erosion Damage to Blades in Modern Steam
Turbines, by J. Krzyzanowski.
CZECH., per, Energetyka, Vol 23, May 1969,
pp 163-166.
C.E. Trans 5128

Scientific
Energy Conversion (Non-Propulsive)
(Contd)

Explosions in Steam Generator Combustion Chambers and Remedies. Part 1., by J. Patary.
FRENCH, per, Rev Gen Therm, Vol 8, June 1969, pp 571-600.
C.E. Trans 5319

Explosions in Steam Generator Combustion Chambers and Remedies, Part 2., by J. Patary.
FRENCH, per, Rev Gen Therm, Vol 8, Jul-Aug 1969, pp 701-732.
C.E. Trans 5320

Extra Losses in Rotor End Bells of Turbogenerators, by H. Baush.
GERMAN, per, E.T.Z.-A, Vol 90, Mar 1969, pp 126-130.
C.E. Trans 5282

Production of Turbine Rotors for a Turbo-alternator Set of 600 MW, by J. F. Javelle.
GERMAN, rpt, International Forging Congress, Berlin 9-11 June 1965, pp 1-14.
C.E. Trans 5291

Selected Cases of Damage. Damage to Turbo-Generators Through Lack of Oil.
GERMAN, per, Maschinenschaden, No 3-4, 1956, pp 51-53.
C.E. Trans 5297

Origin, Assessment and Avoidance of Dust in Turbo-generators,
GERMAN, per, Maschinenschaden, Vol 42, June 1969, pp 81-93.
C.E. Trans 5327

Severe Fire in a Generating Station, by H. Grobner.
GERMAN, per, Osterr Feuwehr, Vol 8, Part 6, 1954, pp 124-125.
C.E. Trans 5317

Heat Losses in the Case of Interrupted Operation of Thermal Power Stations, by A. Hofstatter.
GERMAN, rpt, Proc 14th World Power Conf, Paper No 15, Sept 1964, pp 1061-1068.
C.E. Trans 5303

Condensing Plant of the 150 MW Unit at the Ibben-burden Station of Preussag AG, by E. Goetze.
GERMAN, per, V.I.K. Berichte, No 176, May 1969, pp 1-38.
C.E. Trans 5302

Scientific
Energy Conversion (Non-Propulsive)
(Contd)

Power Industry Enacts 1970 Power Balance, by Mirko Niksic, Grujica Pavlovic, 15 pp.
SERBO-CROATIAN, per, Elektroprivreda, Belgrade, Jan-Feb 1970, pp 3-9.
JPRS 50534

Materials

On the Relation Between the Characteristics of Diffusion and the Creep of Metallic Compounds, by A. Ya. Shinyayev.
RUSSIAN, per, Akad Nauk SSSR, Inst Metallurgie, Conf Proceedings, 1966, pp 79-83.
*CFSTI TT 70-59064

Theory of the Formation of the Fe₃Al (11) Phase, by V. V. Geichenko.
RUSSIAN, per, Akad Nauk URSR. Kiev, Inst Metallofiz Sb Nauch Rabot Voprosy Fiz Met i Metalloved, No 13, 1961, pp 44-46.
*CFSTI TT 70-58198

The Effect of the Dispersion of Oils in Air on the Seizure and Pitting of Hardened Steel, by M. D. Bezborod'ko, I. I. Solomenko. 15 pp.
RUSSIAN, per, AN SSSR. Institut Mashinovedeniya. Treniya i Iznos v Mashinakh, No 20, 1968, pp 211-222.
AIR/FTD/MT-24-439-69

The Interdiffusion Between Ti and Cu and other Metals, by A. Ya. Shinyayev.
RUSSIAN, per, Akad Nauk SSSR, Inst Met Baikova, 1964, pp 289-293.
*CFSTI TT 70-59084

On the Diffusion Soldering of Titanium, by A. Ya. Shinyayev.
RUSSIAN, per, Akad Nauk SSSR, Inst Met Baikov, (6th Conf of Titanium Metal), 1965, pp. 305-308.
*CFSTI TT 70-59076

The Behavior of Nitrogen During Melting and Teeming of Transformer Steel, by V. A. Alyavdin.
RUSSIAN, rpt, AN SSSR. Inst Met A.A. Baikov, Fiz Khim Osnovy Proizv Stali, 1967, pp 367-369.
BISI 7602

On the Surface of Interaction During Electronslag Remelting, by M. M. Klyuyev, Yu. M. Mironov.
RUSSIAN, rpt, AN SSSR. Inst Met Baikov, F.K. Osnovy Proizov Stali, 1967, pp 256-260.
BISI 7935

Short-term and Stress-rupture Strength of a B-alloy of the Ti-Mo-Cr-Fe-Al System at High Temperatures, by N. V. Ageyev, S. G. Glazunov, et al. 10 pp.
RUSSIAN, rpt, AN SSSR. Institut Metallurgiy Struktura i Svoystva Zharoprochnykh Metallicheskih Materialov, 1967, pp 294-300.
AIR/FTD/HT-23-175-70

On the Interdiffusion of Ti with Various Elements, by A. Ya. Shinyayev.
RUSSIAN, per, Akad Nauk SSR, Vses Nauch Konfeent. Diffuziy v Metall Splay, 1964, pp 51-59.
*CFSTI TT 70-59098

Volume Diffusion of Cr and FeCr Alloys at High Temperatures, by A. G. Lesnik.
RUSSIAN, per, Ak Nauk URSR, Inst Metalofiz Sborn Nauch Rabot Voprosy Fiz Metall i Metalloved, Vol 5, 1954, pp 118-122.
*CFSTI TT 70-59105

Study of Atomic Movements in Self-diffusion of Metals, by M. A. Krovoglaz.
RUSSIAN, per, Ak Nauk URSR, Inst Metalofiz Sborn Nauch Rabot Voprosy Fiz Metall i Metalloved, Vol 5, 1954, pp 128-137.
*CFSTI TT 70-59106

Mechanism of Diffusion of Some Elements in Irons and Steels, by I. Ya. Dekhytat.
RUSSIAN, per, Ak Nauk URSR, Inst Metalofiz Sborn Nauch Rabot Voprosy Fiz Metall i Metalloved, No 8, 1957, pp 77-90.
*CFSTI TT 70-59107

Volume Diffusion of Co and Fe in Co and FeCo Alloys Ni in Fe, by S. D. Gertsriken.
RUSSIAN, per, Ak Nauk URSR, Inst Metalofiz Sborn Nauch Rabot Voprosy Fiz Metall i Metalloved, No 9, 1959, pp 154-161.
*CFSTI TT 70-59108

Analysis Models for Diffusion in Two-phase Systems, by A. Ya. Shinyayev.
RUSSIAN, per, Akad Nauk URSR, Kiev, Podvizhnost Atomov, 1964, pp 88-95.
*CFSTI TT 70-59096

Method for Calculating an Adsorption Isotherm, by Sh. M. Sabirov.
RUSSIAN, per, Ak Nauk Uzbekskoy SSR. Izv Seriya Tekh Nauk, Vol 42, No 3, 1968, pp 73-75.
*BISI 8313

An Investigation of Carbon Electrotransport in Metals of the Iron Group, by I. N. Frantzevich.
RUSSIAN, per, Dopovidi Ak Nauk URSR, No 9, 1961, pp 1169-1171
*CFSTI TT 70-59102

Parameters of Kinetics of Recrystallization Center Growth in Iron and Nickel Purified by the Melting Zone, by V. G. Epiphanov.
RUSSIAN, per, Dopovidi Ak Nauk URSR, No 7, 1966, pp 889-891.
*CFSTI TT 70-59103

Minister Outlines Improvements in Nonferrous Metallurgy, by P. F. Lomake, 10 pp.
RUSSIAN, per, Ekonomicheskaya Gazeta, Moscow, No 18, May 1970, pp 5-6.
JPRS 50664

The Aging of Permanent Magnet Alloys at Temperatures of 550-700°C, by L. A. Kavalerova, B. G. Livshits. 11 pp.
RUSSIAN, per, Elektrichestvo, No 12, 1968, pp 72-75.
AIR/FTD/HT-23-643-69

Influence of an Ultrasonic Field on Anodic Dissolution of Certain Metals, by I. K. Marshakov, V. K. Altukhov.
RUSSIAN, per, Elektrokhimiya, Vol 5, No 6, 1969, pp 658-662.
ARM/FSTC/HT-23-190-70

Function of the Material of Contact-Bonded Parts in the Resistance to Corrosion Fatigue Fracture of Steel, by Ya. M. Sirak.
RUSSIAN, per, Fiz Khim Mekh Mat, Vol 5, No 2, 1969, pp 161-164.
HB 7975

Diffusion in Solid Solutions of Metallic Compounds and Their Resistance to Heat, by A. Ya. Shinyayev.
RUSSIAN, per, Issled Zharopr Splay A.N. SSSR Inst Met Baikova, Vol 8, 1962, pp 19-21.
*CFSTI TT 70-59062

Scientific
Materials (Contd)

Investigation of the Effect of Ionizing Radiation on Glass Activated by Transition Metals, by D. G. Galimov. 7 pp.
RUSSIAN, per, Izv AN SSSR. Neorgan Materialy, Vol 5, Aug 1969, pp 1386-1391.
NASA TT F-12,857

Study of the Temperature Dependence of the Volume Self-Diffusion of Fe in Steel, by P. L. Gruzin.
RUSSIAN, per, Izv VUZ Chern Met, No 1, 1960, pp 167-170.
*CFSTI TT 70-59091

On the Rational Relationships Between the Speeds of Bite and Discharge, Acceleration and Deceleration During Rolling on Reversing Mills, by N. I. Bainov.
RUSSIAN, per, Izv VUZ Chern Met., No 21, 1963, pp 90-98.
BISI 7338

The Diffusion of Hydrogen in Fe and Steel's During Electro-cleaning, by P. V. Gel'd.
RUSSIAN, per, Izv VUZ Chern Met, No 4, 1964, pp 119-123.
*CFSTI TT 70-59093

Theory of the Movement of Gases from Steels During Vacuum Degassing, by V. G. Krachmer.
RUSSIAN, per, Izv VUZ Chern Met, No 1, 1965, pp 91-94.
*CFSTI TT 70-58188

The Diffusion of Hydrogen in Fe-Ni Steels, by V. Yu. Koshelva.
RUSSIAN, per, Izv VUZ Chern Met, No 8, 1965, pp 102-107.
*CFSTI TT 70-59094

Recrystallization of High Purity Alpha-Iron, by B. M. Darinskiy.
RUSSIAN, per, Izv VUZ Chern Met, No 4, 1966, pp 110-116.
*CFSTI TT 70-58190

Structure and Phases Formed by Interdiffusion of Al and Fe, by K. I. Vashchenko.
RUSSIAN, per, Izv VUZ Chern Met, No 4, 1966, pp 137-141.
*CFSTI TT 70-58191

Phase Transformations in CuNiZn Alloys, by B. G. Livshits.
RUSSIAN, per, Izv VUZ Chern Met, No 1, 1967, pp 123-127.
*CFSTI TT 70-58192

Scientific
Materials (Contd)

Kinetics of the Reaction of Hydrogen and Nitrogen in Iron and Steel, by S. I. Popel.
RUSSIAN, per, Izv VUZ Chern Met, No 2, 1967, pp 10-16.
*CFSTI TT 70-58193

Development of a Low-Alloy Steel for Seamless Rolled Railroad Wheels, by N. A. Vekser and D. S. Kazarnovsky,
RUSSIAN, per, Izv. VUZ Chern. Met., No 10, 1968.
BISI 7490

Influence of the Original Structure on the Service Performance of a Cast Cutting Tool, by N. F. Kalashnikov, A. A. Govorov.
RUSSIAN, per, Izv VUZ Chern Met, Vol 11, No 12, 1968, pp 120-122.
HB 7761

Normal and Tangential Stresses During Rolling with a Single Driving Roll, by V. H. Vydrin.
RUSSIAN, per, Izv VUZ Chern Met, No 4, 1969, pp 77-79.
*BISI 8344

Ladle Desulfurization of Pig Iron by Injection of Powdered Lime with an Air Jet, by A. N. Pokhvisnev, et al.
RUSSIAN, per, Izv VUZ Chern Met, Vol 12, 1969, No 1, pp 144-149.
HB 7768

On the Factors Governing the Process of Ultrasonic Treatment of Liquid and Solidifying Alloys, by Ye. V. Vygovskiy, et al.
RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 1, 1969, pp 150-153.
HB 7769

Influence of Size Grading of Limestone on the Strength of Fluxed Pellets, by A. N. Pokhvisnev, et al.
RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 3, 1969, pp 25-28.
HB 7828

Effect of Rare-Earth Metals on the Properties of Austenitic Steel, by D. Ya. Povolotskiy, et al.
RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 3, 1969, pp 132-137.
HB 7831

Frictional Forces on the Mandrel in Tube Rolling, by A. P. Chektarev, Ya. L. Vatkin, et al. 6 pp.
RUSSIAN, per, Izv VUZ Chern Met, No 4, 1969, pp 80-82.
AIR/FTD/MT-24-54-70

Scientific
Materials (Contd)

The Refining of Liquid Steel by Injection of Powdered Materials, by V. V. Sukharev, et al. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 5, 1969, pp 62-66.
HB 7422

Some Results of an Investigation of the Dendritic Inhomogeneity of Ball-Bearing Steel, by A. Ye. Volkov, V. A. Boyarshinov. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 5, 1969, pp 143-144.
HB 7918

Effect of the Amount of Additive and Residual Aluminium on Impurities and Fatigue Properties of Rail Steel, by Ye. Ya. Zarvin, et al. RUSSIAN, per, Izv VUZ Chern Met, No 6, 1969, pp 76-79.
*BISI 8269

Some Special Features of the Deoxidation of Steel with Silico-Calcium, by S. I. Popel'. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 7, 1969, pp 38-41.
HB 8099

Refining Pig Iron Outside the Blast Furnace with Spent Open-Hearth Slag, by Ya. I. Arzamastsev. RUSSIAN, per, Izv VUZ Chern Met, No 8, 1969, pp 56.
*BISI 8281

Some Methods of Investigating the Influence of the Composition of Nonmetallic Inclusions Upon the Strength of Steel, by V. M. Finkel', et al. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 8, 1969, pp 120-123.
HB 8071

Composition Changes of Nonmetallic Inclusions During the Melting and Pouring of High-Alloy Steel, by V. I. Zhalybin, et al. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 9, 1969, pp 50-54.
HB 8046

Removal of Nonferrous Metals from Liquid Nickel and Nickel Alloys by Bubbling Argon Through Them Under Vacuum, by B. G. Chernov, P. Ya. Ageyev. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 10, 1969, pp 5-8.
HB 8042

Scientific
Materials (Contd)

Conditions of Removal of Titanium and Zirconium Nitrides from Steel, by V. Ye. Roshchin, RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 10, 1969, pp 43-45.
HB 8045

Structure of Plastic Diffusion Layers on Steel (Vacuum) Chromized from a Sublimated Phase, by Ye. P. Ponomarenko, et al. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 10, 1969, pp 93-97.
HB 8041

The Problem of Automating the Temperature Schedule of Electric Furnace Heats, by M. F. Sidorenko, et al. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 11, 1969, pp 60-63.
HB 8080

Action of Ultrasonic Vibrations in the Crystallization (of Steels and Alloys) in Electroslag Remelting, by V. P. Kudel'kin. RUSSIAN, per, Izv VUZ Chern Met, Vol 12, No 11, 1969, pp 64-70.
HB 8077

The Calculation of Optimum Moisture Content of Dispersed Materials Before Pelletizing, by V. M. Vityugin. RUSSIAN, per, Izv VUZ Chern Met, No 42, 1969, pp 42-43.
*BISI 8282

Casting a Directionally-Solidifying Ingot. Part I., by L. F. Vygodner, et al. RUSSIAN, per, Izv VUZ Chern Met, Vol 13, No 1, 1970, pp 48-51.
HB 8122

Technology of Treating Liquid Steel with Powdered Materials, Part I, by V. I. Simonov, et al. RUSSIAN, per, Izv VUZ Chern Met, Vol 13, No 1, 1970, pp 52-55.
HB 7904

Oxidizability of Steel When Oxygen Blown, by A. I. Stroganov. RUSSIAN, per, Izv VUZ Chern Met, No 1, 1970, pp 61-65.
*HB 8116

Scientific
Materials (Contd)

Variation in Compositions of Metal and Slag with Different Contents of Silicon and Manganese While Blown with Oxygen, by E. Ya. Zarvin.
RUSSIAN, per, Izv VUZ Chern Met, No 2, 1970, pp 47-52.
*HB 8176

The Selection and Testing of Optimum Lubricants for Low-Speed, Low-Temperature, and Unsealed Friction Units, by D. T. Gayevik. 9 pp.
RUSSIAN, per, Izv VUZ Neft' i Gaz, No 3, 1968, pp 53-56.
AIR/FTD/HT-23-632-69

Study of the Mechanism of Coke Formation in the Cracking of Petroleum Resins, by R. Z. Magaril, Ye. I. Aksenova.
RUSSIAN, per, Izv VUZ Neft i Gaz, Vol 10, No 11, 1967, pp 134-136.
ATS RJ-5390

Comparison of Kinetics of Coke Formation on CaX Zeolite and Amorphous Aluminosilicate, by V. F. Sabitova.
RUSSIAN, per, Izv VUZ Neft i Gaz, Vol 12, No 6, 1969, pp 59-63.
ATS RJ-5378

Thermal Conductivity of Molten Chalcogenides of Various Nonferrous Metals, by A. S. Okhotin, V. M. Glazov, et al, 8 pp.
RUSSIAN, per, Izv VUZ Tsvetnaya Metallurgiya, No 2, 1969, pp 30-34.
AIR/FTD/HT-23-172-70

The Flotation Properties of Phenacite and Bertrandite, by M. A. Eygeles, N. I. Barashnev, 8 pp.
RUSSIAN, per, Izvestiya VUZ, Tsvetnaya Metallurgiya Ordzhonikidze, Vol 13, No 1, 1970, pp 6-11.
JPRS 50642

The Hardening of Metals During Hot Plastic Treatment with an Alternating Deformation Rate, by D. I. Suyarov, R. V. Lal', 7 pp.
RUSSIAN, per, Izvestiya VUZ, Tsvetnaya Metallurgiya Ordzhonikidze, Vol 13, No 1, 1970, pp 130-135.
JPRS 50642

Synthetic Rubber Industry Celebrates V. I. Lenin Centennial, by V. S. Fedorov, 11 pp.
RUSSIAN, per, Kauchuk i Rezina, Moscow, No 4, 1970, pp 1-5.
JPRS 50613

Scientific
Materials (Contd)

Innovations in Technical Rubber Object Production Technology and Equipment, by V. A. Shvetsov, 6 pp.
RUSSIAN, per, Kauchuk i Rezina, Moscow, No 4, 1970, pp 29-31.
JPRS 50613

Chemical Fiber Industry Surveyed, by V. P. Semenov, 6 pp.
RUSSIAN, per, Khimicheskiye Volokna, Moscow, No 2, 1970, pp 3-4.
JPRS 50671

Characteristics of Heating and Forging of Titanium Alloys with Protective Coatings, by V. I. Zaleskiy, A. R. Pimenov. 9 pp.
RUSSIAN, per, Kuznechno-Shtampovoye Proizvodstvo No 11, 1968, pp 9-11.
AIR/FTD/HT-23-621-69

Diffusion Processes in Steels and the Theory of the Structure of Metals, by N. Ageyev.
RUSSIAN, per, Leningrad, Politekhn Inst imeni M. I. Kalinina Izv, Vol 31, 1928, pp 183-196.
*CFSTI TT 70-59080

Heat Transfer in Steels, by B. B. Kuprovskiy.
RUSSIAN, per, Liteynoye Proizvodstvo, Vol 9, 1956, pp 16-18.
*CFSTI TT 70-59118

On the Diffusion of Mg in Fe, by I. L. Mirkin.
RUSSIAN, per, Liteynoye Proizvodstvo, No 12, 1957, pp 13-16.
*CFSTI TT 70-59085

Volume Diffusion in Steels, by F. N. Tavazde.
RUSSIAN, per, Liteynoye Proizvodstvo, No 10, 1963, pp 26-28.
*CFSTI TT 70-59124

Issuance of Revised Cement Use Norms Urged, by G. Koval'skiy, 6 pp.
RUSSIAN, per, Materialno Tekhnicheskoye Snabzheniye, Moscow, No 11, 1969, pp 89-91.
JPRS 50562

Physical Metallurgy and Heat Treatment, by N.V. Ageev, 195pp.
RUSSIAN, bk, Metallovedenie i Termicheskaya Obrabotka, 1965
CFSTI TT 69-55040

Scientific
Materials (Contd)

On the Austenite Transition, by T. A. Lebedev.
RUSSIAN, per, Metallurg, Vol 15, 1940, pp 61-63.
*CFSTI TT 70-59123

First Industrial Installation for Feeding Technological Lubricants for the Hot Rolling of Steel, by A. P. Chekmarev, et al.
RUSSIAN, per, Metallurg i Gornorudn Prom, Vol 5, No 2, 1969, pp 17-20.
HB 8099

Desulfurization of Pig Iron with Magnesium Metal in Ladles, by I. I. Shestopalov, et al.
RUSSIAN, per, Metallurg i Gornorudn Prom, Vol 10, No 2, 1969, pp 6-8.
HB 7884

Corrosion of Metals (Methods of Investigation), by V.V. Romanov, 219 pp.
RUSSIAN, bk, Metody Issledovaniya Korroziy Metallov, 1965.
CFSTI TT 69-55038

Maximum Permissible Loads and Slip Rates in Metal-Plastic Friction Pairs, by Sh. M. Bilik, P. M. Cherkasskaya. 8 pp.
RUSSIAN, rpt, Moscow. Inst Mashinovedeniya. Primeniye Materialov na Osnove Plastmass dlya Opor Skol'zheniya i Uplotneniy v Mashinakh, 1968, pp 61-65.
AIR/FTD/MT-24-355-69

New Structural Steels Being Developed, by O. Bannykh, 5 pp.
RUSSIAN, per, NTO SSSR, Moscow, No 2, 1970, pp 15-16.
JPRS 50585

Structure and Properties of Moulds from Cast Iron Modified by Cerium, by N. A. Voronova, et al.
RUSSIAN, per, N. Trudy Dnepropetr Met Inst, Vol 26, 1967, pp 82-90.
BISI 7067

Service Performance of Zircon (Tundish) Nozzles for the Continuous Casting of Steel, by A. K. Karklit, et al.
RUSSIAN, per, Ogneupory, Vol 34, No 12, 1969, pp 10-15.
HB 8090

The Effect of Surfactants on the Properties of Dense Elastomer from Elastic Polyurethane Foam, by V. P. Chabotarev.
RUSSIAN, per, Plast Massy, No 8, 1969, pp 53.
ATS RJ-5351

Scientific
Materials (Contd)

Forgings from Special Steels (Selected Chapters), by I. G. Generson. 123 pp.
RUSSIAN, bk, Pokovki iz Spetsial'nykh Satley, 1967, pp 1-153.
AIR/FTD/HT-23-1334-68

Densification of Bimetals in the Process of Compaction, by G. F. Tikhonov, A. V. Sivov.
RUSSIAN, per, Poroshkovaya Metallurgiya, Vol 9, No 11 (83), 1969, pp 12-15.
HB 8097

On the Determination of the Permeation of Gases in Metals, by A. M. Rodin.
RUSSIAN, per, Pribery i Tekh Eksperimenta, No 4, 1957, pp 68-69.
*CFSTI TT 70-59120

Experimental Determination of the Creep Characteristics of Fiber Glass-reinforced Plastics, by S. A. Udovenko. 7 pp.
RUSSIAN, per, Samoletrostroyeniye i Tekh Vozdushnogo Flota, 1968, pp 97-100.
*NASA TT F-12,742

Diffusion of Carbon in Steels, by V. G. Dt'yshko.
RUSSIAN, per, Sakharnaya Prom, Vol 41, 1967, pp 47-48.
*CFSTI TT 70-59122

Interaction of Dislocations with Carbon Atoms in Martensite, by V. A. Sarrak, et al.
RUSSIAN, per, Sb Trud Tsent Nauchn Issled Inst Chern Met, No 58, 1968, pp 151-157.
BISI 7576

Boronizing Molybdenum from Vapor Phase, by V. N. Karev, A. P. Klyucharev. 4 pp.
RUSSIAN, rpt, Seminar po Zharostoykim Pokrytiyam, 3D Leningrad, 1966, 1968, pp 99-102.
AIR/FTD/MT-24-320-69

Development of High-Temperature Titanium Alloy VT9, by V. N. Neugodova. 21 pp.
RUSSIAN, coll, Titan v Promyshlennosti Sbornik Statey, 1961, pp 185-202.
AIR/FTD/HT-23-171-70

Effect of Order-disorder Transition on Diffusion, by I. B. Borovskiy.
RUSSIAN, per, Trudy Ak Nauk SSSR Inst Met Im A.A. Baikova, No 6, 1960, pp 77-80.
*CFSTI TT 70-58200

On the Parameters of Atomic Size in the Theory of Boundary Diffusion in Metals, by V. I. Arkharov.

RUSSIAN, per, Trudy Akad Nauk SSSR, Ural Fil Inst Fiz Met, No 16, 1955, pp 75-81.

*USDI/BR TT 70-58187

A Study of the Volume Diffusion of Ni in NiCr Steels, by V. I. Arkharov.

RUSSIAN, per, Trudy Ak Nauk SSSR, Ural Fil Sverdl Inst Fiz Metall, No 19, 1958, pp 23-42.

*CFSTI TT 70-59110

A Study of the Volume Diffusion Processes in Steels Containing Ni and Cr Elements, by V. I. Arkharov.

RUSSIAN, per, Trudy Ak Nauk SSSR, Ural Fil Sverdl Inst Fiz Metall, No 19, 1958, pp 122-126.

*CFSTI TT 70-59111

A Study of Mutual Diffusion in the Cu-Au System, by I. B. Borovskiy.

RUSSIAN, per, Trudy Inst Metal, No 15, 1963, pp 32-40.

*CFSTI TT 70-59113

A Study of Self-Diffusion in Metals in the Area of Phase Transitions, by N. A. Bogdanov.

RUSSIAN, per, Trudy Inst Metal, No 15, 1963, pp 138-146.

*CFSTI TT 70-59112

Surface Quality in Turning Heat-Resistant Materials, by F. P. Uryvskiy, B. S. Korotin. 13 pp.

RUSSIAN, per, Trudy Kubyshev. Aviatsionnyy Inst, No 20, 1965, pp 163-174.

AIR/FTD/MT-24-430-69

Austenitic Manganese Cast Iron as Material for Wear-Resistant Parts, by V. B. Lyadskiy.

RUSSIAN, per, Trudy Tadzhikskiy Sel'skokhozyaystvennyy Institut, Vol 10, 1966, pp 3-8.

AIR/FTD/MT-24-464-69

Wear Resistance of Slider-Type Bearings of Construction Machines from Austenitic Manganese Cast Iron, by V. B. Lyadskiy, A. I. Fedyanin.

RUSSIAN, per, Trudy Tadzhikskiy Sel'skokhozyaystvennyy Institut, Vol 10, 1966, pp 14-19.

AIR/FTD/MT-24-464-69

X-Ray Investigations of the Surface Layers of Austenitic Manganese Cast Iron, subjected to Wear by Sliding Friction with Lubricant Containing Abrasives, by V. B. Lyadskiy, D. I. Stanichev.

RUSSIAN, per, Trudy Tadzhikskiy Sel'skokhozyaystvennyy Institut, Vol 10, 1966, pp 20-23.

AIR/FTD/MT-24-464-69

Abrasive Wear Resistance of Austenitic Manganese Cast Iron, by A. N. Volkov, V. B. Lyadskiy.

RUSSIAN, per, Trudy Tadzhikskiy Sel'skokhozyaystvennyy Institut, Vol 10, 1966, pp 24-26.

AIR/FTD/MT-24-464-69

The Effect of Manganese Content on Abrasive Wear Resistance of Austenitic Manganese Cast Irons, by A. N. Volkov, S. Teshayev.

RUSSIAN, per, Trudy Tadzhikskiy Sel'skokhozyaystvennyy Institut, Vol 10, 1966, pp 27-28.

AIR/FTD/MT-24-464-69

The Effect of Annealing on the Hardness and Abrasive Wear Resistance of Austenitic Manganese Cast Irons, by V. B. Lyadskiy, M. U. Mayransayev.

RUSSIAN, per, Trudy Tadzhikskiy Sel'skokhozyaystvennyy Institut, Vol 10, 1966, pp 29-32.

AIR/FTD/MT-24-464-69

Optical Glues on a Epoxidepolyester Resin Base, by N. A. Medvedeva, R. K. Gavurina, et al.

RUSSIAN, per, Trudy Vses Konferentsiya po Kleyam i Tekhnologiy Skleivaniya, 1966, pp 53-61.

AIR/FTD/MT-24-373-69

Use of Adhesives in the Manufacture of Plastic-Coated Metals, by Yu. G. Zel'ter, A. N. Bolchek.

RUSSIAN, per, Trudy Vses Konferentsiya po Kleyam i Tekhnologiy Skleivaniya, 1966, pp 265-276.

AIR/FTD/MT-24-373-69

An Increasing the Adhesion of Polyethylene to Metals, by M. M. Kalnin', V. P. Karliyan.

RUSSIAN, per, Trudy Vses Konferentsiya po Kleyam i Tekhnologiy Skleivaniya, 1966, pp 285-292.

AIR/FTD/MT-24-373-69

Paths for Technical Development of Cement Industry, by V. I. Satarin, M. B. Frenkel', 6 pp.

RUSSIAN, per, Tsement, Leningrad, No 3, 1970, pp 6, 7.

JPRS 50583

Scientific
Materials (Contd)

Structural Modifications of the Carbonaceous Material in Pyrolytic Petroleum Cokes, by N. D. Kusakin.
RUSSIAN, per, Tsvet Metal, Vol 38, No 10, 1965, pp 59-62.
ATS RJ-5434

Microdynamics of the Coking of Binders in Pitch-coke Systems Baked on High-Temperature Pitch, by G. M. Dmitriyeva.
RUSSIAN, per, Tsvet Metal, Vol 39, No 12, 1966, pp 63-67.
ATS RJ-5437

Calculation Procedure for Determining the Fluoride Balance in the Electrolytic Production of Aluminum, by S. S. Solntsev.
RUSSIAN, per, Tsvet Metal, Vol 40, No 2, 1967, pp 59-62.
ATS RJ-5426

Effect of the Addition of NaCl + LiF on the Fusibility and Polarization Electromotive Force of the Electrolyte of Aluminum Reduction Cells, by A. V. Vakhobov.
RUSSIAN, per, Tsvet Metal, Vol 41, No 9, 1968, pp 60-62.
ATS RJ-5428

Thermal Self-Adjustment in Aluminum Reduction Cells by Ya. A. Yanko.
RUSSIAN, per, Tsvet Metal, Vol 41, No 10, 1968, pp 72-74.
ATS RJ-5443

Dependence of Anode Effect Parameters on Cryolite-Alumina Melt Composition and Temperature, by A. I. Begunov, Yu. A. Ushakov.
RUSSIAN, per, Tsvet Metal, Vol 42, No 11, 1969, pp 29-31.
ATS RJ-5427

A Study of the Calcining of Petroleum Coke Produced by Delayed Coking, by V. G. Mullageleyev.
RUSSIAN, per, Tsvet Metal, Vol 45, No 10, 1969, pp 57-59.
ATS RJ-5435

Study of Reaction Diffusion Processes During the Chromization of Steels at High Temperatures, by G. N. Dubinin.
RUSSIAN, per, Vestnik Mashinostroyeniya, No 10, 1954, pp 84-87.
*CFSTI TT 70-59119

Scientific
Materials (Contd)

Stability of the Adhesive Bond Between Filled Polyethylene and Steel, by M. M. Kalnin.
RUSSIAN, per, Vysokomol Soedin, Vol 10 A, No 11, 1968, pp 2513-2517.
ATS RJ-5363

Ittrium - Properties, Phase Diagrams, Industrial Applications, by V.F. Terekhova, 167 pp.
RUSSIAN, bk, Yttriy, 1967
CFSTI TT 69-55016
AEC tr-6980
UC-25

Chemical Thermodynamics of Complex Deposition of Elements on the Surface of Certain Metals, by L. P. Ruzinov.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 39-45.
AIR/FTD/MT-24-21-70

Methods of Calculation of Constants, Characterizing the Diffusion Processes During Oxidation, for Cases of Heterophase Interaction with Complex Kinetics, by D. I. Layner, A. S. Bay.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 73-80.
AIR/FTD/MT-24-21-70

Methodology of High-temperature Mechanical Tests of Materials with Coatings, by M. M. Aleksyuk, Yu. I. Kozub.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 94-98.
AIR/FTD/MT-24-21-70

Diffusion During High-Temperature Service of Protective Coatings on Molybdenum, by Ye. V. Borisov, P. L. Gruzin.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 104-109.
AIR/FTD/MT-24-21-70

Surface Alloying of ZhS6-K Alloy with Three Elements, by G. V. Zemskov, R. L. Kogan.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 110-113.
AIR/FTD/MT-24-21-70

Heat Resistance of Alloy ZhS-6K After Multi-component Diffusion Saturation, by G. V. Zemskov, R. L. Kogan.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 114-117.
AIR/FTD/MT-24-21-70

Score-Resistant Vacuum Diffusion Coatings on Steels and Alloys, Used in Turbine Construction, by B. A. Filonenko, Ye. P. Ponomareko.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 124-129.
AIR/FTD/MT-24-21-70

Thermal Diffusion Saturation of Molybdenum in Terms of Boron, by I. S. Gayev, Ye. V. Sheyanova.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 130-133.
AIR/FTD/MT-24-21-70

Cladding of Parts in Powders and Some Questions of Theory of Diffusion Saturation, by A. A. Gusev.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 150-154.
AIR/FTD/MT-24-21-70

Study of Structural Features of the Diffusion Zone and Kinetics of Deformation of Clad Steel with a Protective Chromium-Nickel Layer, by M. G. Lozinskiy, A. I. Tananov.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 170-177.
AIR/FTD/MT-24-21-70

Measurement of the Diffusion Coefficient in Steels and Fe-alloys, by M. Ye. Blanter.
RUSSIAN, per, Zavodskaya Laborat, Vol 14, 1948, pp 296-306.
*CFSTI TT 70-59099

Ash Concrete Outside Walls Tested in Magadan, by R. Ivanov, V. Soroker, 6 pp.
RUSSIAN, per, Zhilishchnoye Stroitel'stvo, Moscow, No 3, 1970, pp 10-11.
JPRS 50583

Effect of Plastic Deformation Upon the Strength of Martensitic Stainless Steel, by M. I. Chernyak,
UKRAINIAN, per, Dopovidi AN UkrSR, Ser A, No 6, 1968, pp 565-568.
HB 8091

Contact Interaction Between Silicon and Boron Carbides and Their Compounds with Liquid Metals, by G. V. Samsonov, et al.
UKRAINIAN, per, Dopovidi AN UkrSR, No 5, 1969, pp 468-471.
HB 7913

Longitudinal Cracks in Chilled Cast-Iron Rolls, by R. Kamensky, J. Piskor.
CZECH, per, Hutnik, Vol 16, No 6, 1966, pp 289-292.
BISI 7645

Principles of Complex Quality Control in the Metallurgical Industry, by Z. Puncoschar.
CZECH, per, Hutnik, Vol 19, No 1, 1969, pp 3-5.
BISI 7460

Fuel for Blast Heating to High Temperatures, by V. Hadamek.
CZECH, per, Hutnik, Vol 19, No 11, 1969, pp 411-414.
*BISI 8325

Launching Austenitic Corrosion-Resistant Steel Production, by J. Chvojka.
CZECH, per, Hutnik, Vol 19, No 11, 1969, pp 415-419.
*BISI 8326

Investigation in Dross Effect on Microcleanness of Steel Forgings with Radiosotope ^{45}Ca , by T. Myslivec.
CZECH, per, Hutnik, Vol 19, No 11, 1969, pp 420-425.
*BISI 8327

Importance of Electrical Equipment for Operation of Steelmaking Arc Furnaces, by J. Hlineny.
CZECH, per, Hutnik, Vol 19, No 11, 1969, pp 426-429.
*BISI 8328

Applying Spectrometers to Steelmaking Process Control, by R. Fierla.
CZECH, per, Hutnik, Vol 19, No 11, 1969, pp 430-432.
*BISI 8329

Effect of Technological Conditions on Mechanical Properties and Structure of Hot Rolled-low-Carbon Strip Steels, by V. Chadzis.
CZECH, per, Hutnik, Vol 19, No 11, 1969, pp 438-441.
*BISI 8330

Problems of Optimum Blast Furnace Output, by R. Ebert, K. Scheidig.
CZECH, per, Hutn Listy, Vol 24, No 2, 1969, pp 86-92.
BISI 7483

Scientific
Materials (Contd)

Improving Ferrochromium Technology, by P. Cizmarik.
CZECH, per, Hutn Listy, Vol 24, No 2, 1969,
pp 92-97.
BISI 7484

Effect of Temperature, Chemical Analysis, and
Structure Condition on Hot Yield Stress Of Steels,
by M. Kidek, et al.
CZECH, per, Hutn Listy, Vol 24, No 2, 1969,
pp 98-104.
BISI 7485

Research on the Vacuum and Temperature Conditions
in the Sinter Bed, by J. Hanel.
CZECH, per, Hutn Listy, Vol 24, No 3, 1969,
pp 153-160.
BISI 7640

The Laboratory Study of Non-uniform Deformation
of Ingots, by Z. Zamyslovsky.
CZECH, per, Hutn Listy, Vol 24, No 3, 1969,
pp 172-177.
BISI 7643

Speeding Up Bath Sample Analysis in a Steel Plant,
by Z. Novotny, K. Kubon.
CZECH, per, Hutn Listy, Vol 24, No 4, 1969,
pp 295-298.
BISI 7421

Analysis of Pig Iron on the Polyvac Quantometer,
by K. Kubon.
CZECH, per, Hutn Listy, Vol 24, No 4, 1969,
pp 299-301.
BISI 7422

Quantometric Analysis of Slags, by N. Hartl.
CZECH, per, Hutn Listy, Vol 24, No 4, 1969,
pp 301-302.
BISI 7423

Process Control of Blast Furnace Burdening, by
M. Prouza.
CZECH, per, Hutn Listy, Vol 24, No 10, 1969,
pp 691-695.
*BISI 8337

Studying Pressure in Hot Rolling of Medium-alloy
Steels, by J. Pocta.
CZECH, per, Hutn Listy, Vol 24, No 10, 1969,
pp 712-717.
*BISI 8338

Scientific
Materials (Contd)

Effect of Chemical Analysis of Sinter on Evenness
in Composition of Open Hearth Pig Iron, by
L. Tajze.
CZECH, per, Hutn Listy, Vol 24, No 12, 1969,
pp 838-842.
*BISI 8331

Model Research of Flame and Waste Gas Aerodynamics
in Open-hearth Furnaces, by M. Gottwald.
CZECH, per, Hutn Listy, Vol 24, No 12, 1969,
pp 843-849.
*BISI 8332

Some Problems in Development of Steels for Cast
Dies, by S. Drapal.
CZECH, per, Hutn Listy, Vol 24, 1969, No 12,
pp 850-856.
*BISI 8333

Establishing Effect of Surface Energy in Secondary
Recrystallization of Oriented Transformer Strip,
by J. Ulmann.
CZECH, per, Hutn Listy, Vol 24, No 12, 1969,
pp 857-863.
*BISI 8334

Substitute Fuels and Their Importance in Blast
Furnace Process, by P. Morcinek.
CZECH, per, Hutn Listy, Vol 25, No 2, 1970,
pp 73-77.
*BISI 8388

Analyzing Ingot Rolling Process by Modelling in
Laboratory Conditions, by Z. Zamyslovsky.
CZECH, per, Hutn Listy, Vol 25, No 2, 1970,
pp 87-95.
*BISI 8389

Effect of Chromium and Nickel on Recrystallization
Kinetics of Austenite After Hot Deformation, by
J. Elfmark.
CZECH, per, Hutn Listy, Vol 25, No 2, 1970,
pp 96-102.
*BISI 8390

New Electrical Steel Types Manufactured in
Czechoslovakia, by O. Moravek.
CZECH, per, Hutn Listy, Vol 25, No 2, 1969,
pp 115-123.
*BISI 8391

The Absolute Quantitative X-Ray Diffraction Analysis
of Carbide Phases in Steels. I - Carbon Steels, by
J. Fiala.
CZECH, per, Kovove Mat, Vol 6, No 6, 1968,
pp 579-593.
BISI 7639

Distribution of Ingredients Between Phases of the Fe-Fe₃C Eutectic, by R. Kamensky.
CZECH, per, Kovove Mat, Vol 7, No 1, 1969, pp 31-40
BISI 7623

The Effect of Impact on the Mechanical Properties of 19 721 Tool Steel, by K. Polak, J. Nemec.
CZECH, per, Kovove Mat, Vol 7, No 1, 1969, pp 74-86
BISI 7620

The Relative Rate of Carbon Diffusion and of Substitution Elements in the Ternary Fe-C-X Solid Solutions, by K. Stransky.
CZECH, per, Kovove Mat, Vol 7, No 1, 1969, pp 93-95
BISI 7624

The Thermodynamics of Deoxidizing with Silico-Manganese, by J. Petros.
CZECH, per, Sbornik, Vol 13, No 2-3, 1967, pp 195-204.
*BISI 8357

The Tube Drawing Reduction Mills, Their Development and Importance Today, by G. Decker, F. Kocks.
CZECH, rpt, Sbornik Symp "Stiefel VZKG-60 Let",
BISI 7625

Study of the Temperature Effect of the Results of Impact Bending Test in Notched Specimens by Means of Notch Hammer PSW 1000, by J. Hidveggy.
CZECH, per, Sbornik V.S.T. Kosiciach, No 1, 1968, pp 173-183.
BISI 7664

Heat Treatment of Chemically Deposited Nickel Coatings, by J. Kocich, et al.
CZECH, per, Sbornik Vedeck Prac Vys Skoly Techn Kosicialch, No 1, 1968, pp 143-153.
BISI 7662

Some Problems of Ultrasound Automation in Defectoscopy and Their Solution, by J. Obraz.
CZECH, per, Strojirenstvi, Vol 19, No 1, 1969, pp 22-31.
BISI 7538

Effect of Self-Tempering on Microdeformation in Outer Layers of Toothed Wheels after Surface Hardening, by Q. Jackuliak, V. Bojnican.
CZECH, per, Strojirenstvi, Vol 19, No 1, 1969, pp 32-36.
BISI 7618

Quality of Cold Rolled Thin Steel for Deep Drawing, by O. Moravek.
CZECH, per, Strojirenstvi, Vol 19, No 3, 1969, pp 165-172.
BISI 7676

Heat Treated Weldable Sheet Steel, by F. Sicha.
CZECH, per, Strojirenstvi, No 3, 1970, pp 155-164.
*BISI 8386

Corrosion Fatigue of Mn-Si Steel in NaCr Medium, by J. Kocich.
CZECH, per, Strojirenstvi, No 3, 1970, pp 169-171.
*BISI 8387

Impact Crushers and the Possibility of Their Utilization on the Coal Industry, by J. Andel.
CZECH, per, Tuha Paliva, Vol 2, No 4-5, 1969, pp 102-106.
*BISI 8372

The Effect of Moisture Content and Granulation of a Coke Charge on its Bulk Density, by M. Orlik.
CZECH, per, Tuha Paliva, Vol 2, No 4-5, 1969, pp 107.
*BISI 8295

Loading Tests of Building Structures.
CZECH, mono, Zatezovací Zkousky Stavebnich Konstrukci
Dec 1967, 28 pp.
*CFSTI TT 70-50101

Diffusion in Solid Metals, by M. J. Druyvesteyn.
DUTCH, per, Nederlands Tijdschrift voor Natuurkunde, Vol 28, 1962, pp 430-453.
*CFSTI TT 70-59037

Austenitic Stainless Steels with Improved Mechanical Properties, by M. A. Mercier.
FRENCH, per, Aciers Speciaux, Vol 10, 1969, pp 13-20.
BISI 8262

Short Range Order in Substitutional Solid Solutions in Metals, by G. Fournet.
FRENCH, per, Acta Met, Vol 1, 1953, pp 383-389.
*CFSTI TT 70-58212

Physical and Chemical Properties of Protective Concrete, by A. Bernard.
FRENCH, per, Bull d'Inf Scientifiques et Tech, No 109, Nov 1966, pp 39-48.
C.E. Trans 5307

Comparison of Different Methods of Atomizing Fuel Oil in the Open Hearth Furnace, by G. Husson, et al.
FRENCH, per, C.D.S. Circ, 1956, pp 555-569.
BISI 7275

Scientific
Materials (Contd)

A Study of the Grid Sintering of Mixtures of Haematite Ores. The Influence of the Index of Basicity, by R. Rochas, et al.
FRENCH, per, C.D.S. Circ, No 7-8, 1967, pp 1767-1810.
*BISI 6572

Influence of Niobium on the Properties of a Killed A52 Steel, by G. Sanz, M. Grumbach.
FRENCH, per, Centre Doc Sider Circ, No 1, 1969, pp 237-266.
*BISI 7654

Use of Statistical Methods for the Synamic Study of the Blast Furnace, by J. C. Cochery, et al.
FRENCH, per, C.D.S. Circ, Vol 26, No 9, 1969, pp 1965.
*BISI 8294

Basic Bessemer Commission, by D. Mansuy.
FRENCH, per, C.D.S. Circ, No 9, 1969, pp 2015-2036.
*BISI 8151

Forged-Steel Rolls for Roughing Mills, by A. Barbetrac.
FRENCH, per, C.D.S. Circ, No 9, 1969, pp 2037-2046.
*BISI 8278

Intermediate and Finishing Rolls for Alloy Steel Mills, by L. Lestrat.
FRENCH, per, C.D.S. Circ, No 9, 1969, pp 2063.
*BISI 8291

The Pearlitic Clinking of Special Steel Ingots, by R. Tricot.
FRENCH, per, C.D.S. Circ, No 12, 1969, pp 2675-2694
*BISI 8252

Study and Prevention of Sulphurization of Tin Cans, by R. Rocquet.
FRENCH, rpt, Cohite International Permanent de la Conserve, Premiere Rencontre Internationale des Industriels de la Conserve, Marrauech (Marou), Oct 1969.
*BISI 8299

The Reaction of Liquid Steel with an Aluminious Lining Material, by J.-P. Aymard.
FRENCH, per, Fonderie, Vol 281, 1969, pp 348-354.
*BISI 8285

The Present State of the Theory and Practice of Cementation, by L. Guillet.
FRENCH, per, Le Genie Civil, Vol 59, 1911, pp 158-163.
*CFSTI TT 70-58231

Scientific
Materials (Contd)

Cobalt Production at the D'Outokumpu Ou Plant in Finland.
FRENCH, per, J. de Four Electrique, No 7, Aug-Sept 1969, pp 181-182.
*BISI 8279

Irradiation of Low Alloy Uranium Tubes in the EL3 Reactor, by C. Allain.
FRENCH, per, J. Nuclear Materials, Vol 31, 1969, pp 162-186.
C.E. Trans 5300

Some Properties of a Uranium Alloy Exhibiting Both High Creep Strength and Low Swelling Under Irradiation, by P. Blanchard.
FRENCH, per, J. Nuclear Materials, Vol 32, 1969, pp 133-119.
C.E. Trans 5299

Direct Reduction of Iron Ore. Process Using Methane Converted by Carbon Dioxide, by I. Tripsa, et al.
FRENCH, per, Met Constr Mecan, Vol 101, Apr 1969, pp 221-226.
*BISI 7920

Economical Aspects of the Use of Partially Reduced Charge in the Prouduction of Cast Iron in the Electric Furnace, by K. Astier.
FRENCH, per, Met Constr Mecan, Vol 101, Aug-Sept 1969, pp 415-423.
*BISI 8358

The LD Process in Japan, by G. Grenier.
FRENCH, per, Mines Mat, May 1969, pp 143-144, June, pp 173-174, 176.
*BISI 8094

Estimate on the Cementation of Cr, by L. Gascuel.
FRENCH, per, Pact; Prevention des Accidents, Contrôles Techniques, Hygiene et Maladies Professionnelles, 11, 1957, p 430.
*CFSTI TT 70-58224

Influence of the Slag Composition on the Blast Furnace Production of Ferromanganese, by R. Jon.
FRENCH, rpt, Paper Presented at the Conference on Manganese, Paris, 1-9 June 1969, pp 1-9.
*BISI 7581

The Mechanism of Grid Sintering, by M. Boucraut, R. Rochas.
FRENCH, per, Rev Ind Min, Vol 50, Sept 1968, pp 629-663.
*BISI 7319

Scientific
Materials (Contd)

On Cementation by Carbon, by L. Guillet.
FRENCH, per, Rev de Metallurgie, Vol 6, 1909,
pp 1013-1023.
*CFSTI TT 70-58232

On the Cementation of Iron by Solid Carbon,
by G. Charpy.
FRENCH, per, Rev Metallurgie, Vol 9, 1912,
pp 305-313.
*CFSTI TT 70-58234

Experimental Study of Metallic Diffusion by the
Thermomagnetic Method, by P. Chevenard.
FRENCH, per, Rev de Metallurgie, Vol 41, 1944,
pp 353-368.
*CFSTI TT 70-58213

Study of Sintering of a Powder of Iron Pyrophoric,
by G. Cizeron.
FRENCH, per, Rev Met Mem Sci, Vol 60, 1963,
pp 771-784.
*CFSTI TT 70-58222

Study of the Kinetics and Micrography of Dezinci-
fication of an Al-Zn (11%Zn) Alloy, by F. Guerin.
FRENCH, per, Rev Met Mem Sci, Vol 65, 1968,
pp 685-689.
*CFSTI TT 70-58223

Dynamic Functioning of the Blast Furnace and Method
of Automatic Regulation, by C. Staib, et al.
FRENCH, per, Rev Met, Vol 65, Nov, 1968, pp 717-750.
BISI 7766

Thermodynamic Study of $\text{SiO}_2\text{-FeO-MnO}$ Slags, by
N. Meysson, A. Rist.
FRENCH, per, Rev Met, Vol 66, Feb 1969, pp 115-117.
BISI 7769

Study of the Crushing Strength of Iron Ore Pellets
After Various Stages of Reduction in a Countercurrent
Gas Stream, by C. Offroy.
FRENCH, per, Rev Met, Vol 66, Jul-Aug 1969, pp 491.
*BISI 8292

Precipitation of Niobium and Carbonitrides in
Weldable Structural Steel, by P. Mandry.
FRENCH, per, Rev Met, Vol 66, Jul-Aug 1969, pp 563.
*BISI 8276

Scientific
Materials (Contd)

Application of the Concept of Wall Temperature to
the Quenching of Steel Parts Upon Sudden Contact
Between the Test Specimen and the Quenching Liquid,
by G. Beck.
FRENCH, per, Rev Met Mem Sci, Vol 66, No 7-8, 1969,
pp 581-589.
*BISI 8287

Study of the Solidification of Continuous Cast
Ingots, by J. Arnoult.
FRENCH, per, Rev Met, Vol 66, No 9, 1969,
pp 585-594.
*BISI 8284

The Phenomenon of Passivity, by J. M. Defranoux.
FRENCH, per, Rev Met Mem Sci, Vol 66, Sept 1969,
pp 641-648.
*BISI 8286

The Application of Mass Spectrometry to the Continuous
Analysis of Metallurgical Gases, by G. Heitz,
F. Thomas.
FRENCH, per, Rev Met, Vol 66, Oct 1969, pp 641-652.
BISI 8097

Solidification Rate and Shape of the Liquid Core
in Continuous Casting, by W. Burgmann.
FRENCH, per, Rev Met, Vol 66, Oct 1969,
pp 663-672.
*BISI 8369

An Examination of the Problems Created by the
Determination of the Oxygen in Steels Using
Vacuum Spark Emission Spectrometry, by
R. Berneron.
FRENCH, per, Rev Met, Vol 66, Oct 1969, pp 695-
700.
*BISI 8367

Influence of Tempering Conditions and Test Temper-
ature on Mechanical Behavior of Maraging Steel, by
L. Roesch.
FRENCH, per, Rev Met, Nov, 1969, pp 725-739.
*BISI 8251

Experimental Investigation of the Stress Corrosion
Behavior of Maraging Steels in Various Media, by
C. B. Sonnino, et al.
FRENCH, per, Rev Met, Nov, 1969, pp 741-748.
*BISI 8250

The Relation Between the Electron Microscope Structure
of Type 31 6Nb Steel and Its Creep Rate at 700°C , by
A. Galpi, G. Frade.
FRENCH, per, Rev Met Mem Sci, Vol 66, No 11, 1969,
pp 811-818.
BISI 8220

Scientific
Materials (Contd)

Scientific
Materials (Contd)

- The Influence of Clustering on the Elimination of Aluminium Oxide Inclusions Due to Molten Iron Deoxidation by Aluminium, by R. Torssell, FRENCH, per, Rev Met, Vol 66, Dec 1969, pp 813-822. *BISI 8305
- Micrographic Fracture Study of Fractures of Stainless Steel Specimens Cracked by Stress Corrosion, by E. Mancarelli. FRENCH, per, Rev Met Mem Sci, Vol 59, Dec 1962, pp 809-817. BISI 6074
- The First Stages of the Dendritic Solidification of Iron-Phosphorous Alloys, by R. Alberny, M. Turpin. FRENCH, per, Rev Met Mem Sci, Vol 65, Jul-Aug 1968 pp 591-596. BISI 7574
- An Example of Research on the Friability of Material, by A. Masson. FRENCH, per, Silicates Industriels, Vol 34, Sept 1969, pp 239-241. *BISI 8266
- The Use of Natural Gas in the Steel Industry, by M. C. Rajon. FRENCH, per, Tech Mod, Vol 56, Jul 1964, pp 331-335. BISI 7690
- The Multilinear Schloemann Merchant Train of the Society Sacilor, FRENCH, per, Techn Mod, Vol 61, Mar 1969, p 77. BISI 7864
- Hydrogen Embrittlement of Two Martensitic Steels Testing Procedures and Results, by L. Bretin, M. Toitot. FRENCH, rpt, Valduc Proceedings on Hydrogen in Metals, 1967, Sept pp 64-82. *BISI 8240
- Hydrogen Permeation and Embrittlement of Titanium and Its Alloys, by L. R. Allemand, et al. FRENCH, rpt, Valduc Proceedings on Hydrogen in Metals, Sept 1967, pp 242-279. *BISI 8241
- Detection of Carbon with the Electron Microprobe, by E. Kohlhaas, F. Scheiding. GERMAN, per, Arch Eisenh, Vol 40, Jan 1969, pp 47-51. BISI 7650
- Generalized Theory for Plane Deformation, by A. Troost, J. Betten. GERMAN, per, Arch Eisenh, Vol 40, Feb 1969, pp 109-119. BISI 7764
- Changes of State in the Heat Treatment of Iron-Cobalt-Nickel Alloys with Nickel Contents of Up to 40% and Their Effect on the Alloy Properties, by W. Koster, W.-D. Heahl. GERMAN, per, Archiv Eisenhüttenwesen, Vol 40, No 7, 1969, pp 575-583. HB 8075
- On the Theory of Metallurgical Processes During the Solidification of Steel, by F. Oeters, et al. GERMAN, per, Arch Eisenh, Vol 40, Aug 1969, pp 603-613. BISI 7818
- Aluminium Oxide and Mullite as Solid Electrolytes in Oxygen Measuring Gauges, by W. A. Fischer. GERMAN, per, Arch Eisen, Vol 40, 1969, pp 707-716. *BISI 8311
- Contribution to the Knowledge of the Reactions Between Pig Iron and Slag in the Blast Furnance, by K. Guddas, et al. GERMAN, per, Arch Eisenh, Vol 40, Oct 1969, pp 751-757. *BISI 8283
- Effect of Roll Flattening on the Configuration of Roll Gap and Pressure Distribution During Cold Rolling, by O. Pawelsi. GERMAN, per, Arch Eisenh, Vol 40, Nov 1969, pp 867-373. *BISI 8366
- Physical Properties, Thermal Expansion and Creep Magnesite Bricks, by H. E. Schwiete. GERMAN, per, Arch Eisenh, Vol 40, Nov, 1969, pp 881-883. *BISI 8296
- Equilibria Between Molten Iron and Saturated Slags of the System CaO-FeO-MnO-SiO_2 at 1600°C Taking Account of the Repartition of Sulphur, by E. Gorl. GERMAN, per, Arch Eisen, Vol 40, 1969, pp 959-967. *BISI 8309
- The Effect of Manganese Oxide on the Equilibria in the System Fe-CaO-FeO-SiO_2 and on the Sulphur Distribution at 1600°C, by G. Tromel. GERMAN, per, Arch Eisenh, Vol 40, Dec 1969, pp 969-978. *BISI 8306

Scientific
Materials (Contd)

Examinations Concerning the Equilibrium Adjustment of the Solid Phases in the System $\text{CaO}-2\text{CaO} \cdot \text{SiO}_2 - 3\text{CaO} \cdot \text{P}_2\text{O}_5$, by W. D. Fiz.
GERMAN, per, Arch Eisenh, Vol 40, Dec 1969, pp 979-984.
*BISI 8307

Nitrogen Absorption of Slags of the System $\text{CaO}-\text{SiO}_2-\text{Al}_2\text{O}_3$, by A. Majdic.
GERMAN, per, Arch Eisenh, Vol 41, Jan 1970, pp 11-17.
*BISI 8260

Creep Rupture Tests on Cr-Mo Steel 10Cr Mo 910 and Observed Changes in the Structure, by A. Kirsch.
GERMAN, per, Arch Eisenh, Vol 41, Jan 1970, pp 43-53.
*BISI 8351

Investigations on the Reversible Temper Brittleness, by E. Schmidtman.
GERMAN, per, Archiv Eisen, Vol 41, Feb 1970, pp 165-171.
*BISI 8376

Investigations Concerning the Brittle Fracture Tendency of Unalloyed Low-Carbon Structural Steel, Taking Account of Their Mechanical Damping Behavior on the KhZ-Range, by E. Martin.
GERMAN, per, Archiv Eisen, Vol 41, Feb 1970, pp 185-193.
*BISI 8377

Preconditions, Possibilities, and Limitations of Grain Size Determination by Measurement of the Ultrasonic Attenuation, by D. Aurich.
GERMAN, per, Arch Eisenh, Vol 41, No 3, 1970, pp 285-291.
*HB 8186

Effect of Non-metallic Inclusions on the Machining Properties of the Steel Ck-45, by W. Koenig.
GERMAN, per, Arch Eisen, Vol 41, Mar 1970, pp 267-277.
*BISI 8378

Limnological Phosphate Analysis - an Automatic Method for the Determination of Dissolved Orthophosphate, by H. Schuster.
GERMAN, per, Arch Hydrobiol, Vol 65, No 4, Feb 1969, pp 539-549.
C.E. Trans 5175

Scientific
Materials (Contd)

Process and Device for the Continuous Production of Concrete Reinforcement Steel of Round Cross-Section with Bond-Increasing Imprints, by J. Gillberg.
GERMAN, per, Auslegeschrift, 1402 731, 4th Sept, 1969.
*BISI 8256

Contribution to the Manufacturers of Cold Drawn Tubes, by M. Vater, H. Kron.
GERMAN, per, Baender Bleche, Vol 10, No 8, 1969, pp 476-489.
BISI 7915

The Surface Treatment of Steel in Relation to Active and Inactive Coatings, by K. Sautner.
GERMAN, per, Baender Bleche, Vol 10, 1969, pp 720-724.
*BISI 8322

On the Use of Weighing Devices, Data Comprehension and Processing Plan in Automated Hot Strip and Cold Rolling Mills, by H. Weinberg.
GERMAN, per, Baender Bleche, Vol 11, No 1, 1970, pp 2-9.
*BISI 8383

Influence of Cold Working on the Creep Behavior of the Austenitic Steel X5 Cr Ni 18-9 at Room Temperature, by W. Schmidt.
GERMAN, per, Baender Bleche, Vol 11, Jan 1970, pp 26-34.
*BISI 8320

On the Rationalization of Tube Manufacture by Optimating the Cutting Process with the Aid of Computer-Controlled Billet Dividing Plants, by E. Gorissen.
GERMAN, per, Baender Bleche, Vol 11, No 1, 1970, pp 35-43.
*BISI 8253

Bright Annealing of High-quality Cold Strip Steel, by Brandt.
GERMAN, per, Baender Bleche, Vol 11, No 2, 1970, pp 73-78.
*BISI 8384

On the Use of Weighing Devices, Data Comprehension and Processing Plants in Automated Hot Strip and Cold Rolling Mills, by H. Weinberg.
GERMAN, per, Baender Bleche, Vol 11, No 2, 1970, pp 78-83.
*BISI 8385

Steel Pipe Linings, by G. Drescher.
GERMAN, per, Bauplanung Bautechnika, Vol 22, No 4, 1968, pp 163-165.
*USDI/BR TT 70-59170

Scientific
Materials (Contd)

Reservoir Tanks, by H. Loser.
GERMAN, per, Bauplanung Bautechnik, Vol 22, No 4,
1968, pp 175-178.
*USDI/BR TT 70-58171

Dangerous Corrosion in Reinforced Concrete and
Its Prevention, by M. Ciganek.
GERMAN, per, Bauplanung-Bautechnik, Vol 22,
No 4, 1968, pp 186-189.
*USDI/BR TT 70-58173

Assemblyline Production of Concrete Elements
Outlined, by P. Michael, 9 pp.
GERMAN, per, Baustoffindustrie, East Berlin,
Mar 1970, pp 84-87.
JPRS 50559

Roasting of Ferrous Sulphate in a Circulating
Stream of Sulphur Dioxide and Oxygen; A Contri-
bution to the Study of the Total Regeneration of
Ferric Oxide and Sulphuric Acid from Hydrated
Ferrous Sulphate, by E. Schwarz-Bergkamf,
F. Ludewig.
GERMAN, per, Berg-Huetten Monatsh, Vol 113, No 9,
1968, pp 331-337.
BISI 7569

Development of the Melting Practice for Rail Steel
in an LD Steelworks, by E. Kammerhofer.
GERMAN, per, Berg-Huetten Monatsh, Vol 113, Nov 1968,
pp 444-450.
BISI 7566

The Process of Production of Rimming Mild Steel
with a Small Number of Inclusions, by
L. Pochmarski.
GERMAN, per, Berg-Huetten Monatsh, Vol 113, Nov,
1968, pp 450-458.
BISI 7494

Coulometric Titration of Transition Metal Oxides,
by H. G. Sockel.
GERMAN, per, Berichte der Bunsen Gesellschaft,
Vol 72, No 7, 1968, pp 745-753.
C.E. Trans 5311

The Influence of Additives on Fine Layered Coal,
by H. R. Maybaum.
GERMAN, per, Brennstoff-Chemie, Vol 49, 1968,
pp 316.
BISI 7315

Changes in the Classification of Macerals During
the Last 15 Years, by M.-T. MacKowsky.
GERMAN, per, Brennstoff-Chemie, Vol 50, No 5,
1969, pp 143-146.
BISI 7774

Scientific
Materials (Contd)

Contribution to the Study of the Formation and
Reduction of Chrome and Manganese Oxide Bearing
Slags in the Production of Stainless Steels by
the Oxygen Remelting Process in the Basic Arc
Furnace, by W. Biesterfeld.
GERMAN, per, DEW-Tech Ber, Vol 9, No 1, 1969,
pp 16-48.
BISI 7894

Maintenance of Carbide Dies for Cold Extrusion,
by H. Eschler.
GERMAN, per, Draht, Vol 19, No 8, 1968, pp 575-580.
BISI 6995

New Developments in Combined Continuous Casting
and Rolling of Steel Bars, by H. G. Baumann.
GERMAN, per, Draht Welt, Vol 55, Oct 1969,
pp 607-613.
*BISI 8373

Interaction of Sintered Magnesite and Chromium
Ore as Dependent on the Temperature, by
G. Bouvier.
GERMAN, per, Dtsch Berg Keram Gesell, Vol 46,
No 7, 1969, pp 357-365.
*BISI 8263

Simplified Theory of Linear Induction Motor, by
M. Poloujadoff.
GERMAN, per, ETZ-A, Vol 90, No 21, 1969, pp 545-548,
BISI 8106

Results of Research on Knotted Net Cloths Made of
Twisted Polyimide Fibers, by H. Stengel.
GERMAN, per, Fischerei Forschung, Vol 6, No 1,
1968, pp 45-59.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 151

Activity of the Fishing Nets Testing Office of
the East German Bureau of Standards (DAMW) in
Connection with International Standard for Net
Materials, by W. Bobzin.
GERMAN, per, Fischerei Forschung, Vol 6, No 1,
1968, pp 113-119.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 126

Survey of Treatment Processes for the Production
of Cast Iron with Spheroidal Graphite, by
E. K. Modl.
GERMAN, per, Glasserei, Vol 56, July 1969,
pp 416-421.
*BISI 8380

Scientific
Materials (Contd)

The Relationships Between Mechanical Properties of Ductile Iron-Carbon Castings, by W. Siefert, K. Orths.

GERMAN, per, Giesserei-Forschung, Vol 21, No 3, 1969, pp 143-151.

BISI 7997

Wear-resistant Castings: Present State and Development, by T. E. Norman.

GERMAN, per, Giessereipraxis, 1969, pp 359-364.

*BISI 8303

Sample Taking Methods for the Determination of Carbon in Spheroidal Graphite Cast Iron, by M. Scheibe.

GERMAN, per, Giessereitechnik, Vol 15, No 5, 1969, pp 143-146.

BISI 8139

Relation Between the Proportion of Sulphur in the Coal Charge, Its Properties, the Coking Conditions and the Proportion of Sulphur in the Coke in High Temperature Carbonization in the Horizontal Chamber Oven, by H. Ernst.

GERMAN, per, Glueckauf Forschungshefte, Vol 30, Aug 1969, pp 197-202.

BISI 8340

Use of Gaseous Hydrocarbons in Particular Natural Gas for the Desulphurization of Pig Iron Outside the Blast Furnace, by F. Oeters.

GERMAN, per, Hoesch Berichte, Vol 4, No 3, 1969, pp 71-75.

*BISI 8304

Vapor-Liquid Phase Equilibrium Studies of the Methanol-Methyl Formate System Using a Gas Chromatographic Method of Analysis, by N. Kozub.

GERMAN, per, J. Prakt Chemie, Vol 17, 1962, pp 283-292.

*BISI 8297

Cooling Plants for Blooms, by O. Moedder.

GERMAN, per, Klepzig Fachber, Vol 11, No 107, 1969, pp 535-537.

*BISI 8381

Diffusion in Metals, by O. Kubashchewski, 39 pp.

GERMAN, per, Landolt-Bornstein, (Springer Verlag) vol 2, chap2523, Part 5, 1968 pp. 1-39.

*NBS TT 70-57862

Scientific
Materials (Contd)

On the Present Situation in the Field of High Temperature Chromium Alloys, by P. Esslinger.

GERMAN, per, Luftfahrttechnik Raumfahrttechnik, Vol 15, No 10, 1969, pp 253-257.

*NASA TT F-13,092

The Bauschinger Effect in Plain Carbon Steels, by G. Robiller, C. Stressburger.

GERMAN, per, Materialpruefung, Vol 11, Mar 1969, pp 85-95.

BISI 7798

Ultrasonic Testing of Heavy Plate in Automatic Equipment, by A. Hein, W. Carius.

GERMAN, per, Materialpruefung, Vol 12, 1970, No 2, pp 53-55.

HB 8169

Welding of Hot Dip Galvanized Steels,

GERMAN, per, Merkblatt 367, 1968, pp 1-19.

BISI 8209

Theory of Sintering, Parts I and II, by H. Fischmeister, 22 pp.

GERMAN, per, Metall, Vol 18, 1964, pp 932-940.

*NBS TT 70-57861

Theory of Sintering, Parts I and II. BY H. Fischmeister, 22 pp.

GERMAN, per, Metall, 19, 1965, pp. 113-119.

*NBS TT 70-57861

Theory of Sintering, Parts I and II, by H. Fischmeister, 22 pp.

GERMAN, per, Metall, 19, 1965, pp. 941-946.

*NBS TT 70-57861

Diffusion in some Noble Metal Alloys, by H. Buckle, 7 pp.

GERMAN, per, Metallforschung, 1, 1946, pp. 47-53.

*NBS TT 70-57866

Diffusion in Some Noble Metal Alloys, II, by H. Buckle, 7 pp.

GERMAN, per, Metallforschung, 1, 1945, pp. 175-181.

*NBS TT 70-57865

Technical Solution of the Problem of Warm Handling of Steel Strip in High Vacuum, by W. Dietrich. GERMAN, per, Mitteilungen, Vol 20, No 11, 1969, pp 232-238.
*BISI 8302

Nickel Pretreatment of Sheet, by J. Wratil. GERMAN, per, Mitt Ver Deutscher Emailfachleute, Vol 16, No 2, 1968, pp 7-10.
BISI 7520

GDR Facilities for Vacuum Treatment of Liquid Steel, by Rolf Thieme, Karlheinz Werner, 18 pp. GERMAN, per, Neue Huette, Leipzig, Mar 1970, pp 140-147.
JPRS 50651

Causes and Conditions for the Formation of the (110) [001] Texture in Iron and Silicon Iron Sheet, by H. D. Wiesinger. GERMAN, per, Neue Huette, Vol 14, No 6, 1969, pp 361-365.
BISI 7681

The Processing of Very High Molecular Polyethylene on Single Worm Extruders, Paying Special Attention to the Intake Zone, by G. Fuchs. GERMAN, per, Plastverarbeiter, Vol 19, No 10, Oct 1968, pp 765-771.
C.E. Trans 5293

Analysis of Alloy Steels Based in Determination of Mn, Ni, Mo, Cr, W, V, Cu, Ti and Co from a Single Weighed Portion of Sample, by Blazejak. GERMAN, per, Radex Rund, Feb 1970, 32 et seq.
*HB 8178

On the Refining of Ferrotungsten, by B. Troberg. GERMAN, per, Radex Rund, Feb 1970, 32.
*HB 8179

Determination of Composition and Source of Oxide Inclusions in Steel - 1, by G. Konig. GERMAN, per, Radex Rund, Feb 1970, 45 et seq.
*HB 8177

Theoretical Considerations on the Solidification of Rimming Steel, by P. Nilles. GERMAN, per, Reiberger Forschungsh, No B137, 1968, pp 19-31.
BISI 8110

Effect of Different Contents of Niobium in Semi-killed and Killed Steels in the Range from 36 to 46 Kp/mm² Yield Strength on Weldability of Thick Plates, by K. Fabian, H. Krautmacher. GERMAN, per, Schweissen Schneiden, Vol 19, Nov, 1967, pp 528-532.
BISI 7153

High Strength Martensitic Steels, by G. Schulze. GERMAN, per, Schweissen Schneiden, Vol 21, May 1969, pp 212-222.
*BISI 8243

Fundamentals of Electric Arc Build-up Welding Using Strip Electrodes, by F. Eichorn. GERMAN, per, Schweissen Schneiden, Vol 21, No 8, 1969, pp 311-315.
*HB 8059

Hydrogen Effusion from Weld Deposits in Steel-Measurement on Specimens from Uncovered Wire Electrodes, by A. Krahle. GERMAN, per, Schweissen Schneiden, Vol 22, No 1, 1970, pp 25-28.
*HB 8171

Studies of the Transformation Behavior, Notch-impact Toughness and Susceptibility to Intercrystalline Corrosion of Iron-chromium Alloys Containing up to 30% of Chromium, by E. Baerlecken. GERMAN, per, Stahl Eisen, Vol 81, 1961, pp 768-778.
*BISI 8323

Crushing of Blast Furnace Coke and Its Use with Classified Sinters, by W. Looz, et al. GERMAN, per, Stahl Eisen, Vol 88, July 1968, pp 793-799.
BISI 7024

Ranges of Variation in Dephosphorisation in the (CaO)-(SiO₂)-(FeO) System and Conclusions for Obtaining Low Phosphorous Contents when Blowing Low Phosphorus Pig Iron, by F. Bardenheuer. GERMAN, per, Stahl Eisen, Vol 89, No 9, 1969, pp 988-994.
BISI 7919

Industrial Scale Desulphurization of Pig Iron Outside the Blast Furnace Using the Flowing Slag Method, by H.-J. Langhammer, et al. GERMAN, per, Stahl Eisen, Vol 89, No 21, 1969, pp 1137.
*BISI 8280

Scientific
Materials (Contd)

Calculation of the Progress of Temperatures in the Finishing Train of a Hot Wide Strip Rolling Mill, by O. Pawelski.
GERMAN, per, Stahl Eisen, Vol 89, Oct 1969, pp 1146-1150.
BISI 7940

Planning of an Economic Production and Allocation of Steel Ingots, by W. Martin.
GERMAN, per, Stahl Eisen, Vol 89, Oct 1969, pp 1159-1164.
*BISI 8254

Measurement of the Distribution of Temperatures During the Drawing of Round Bars, by O. Pawelski, R. Kopp.
GERMAN, per, Stahl Eisen, Vol 89, Nov 1969, pp 1345-1353.
BISI 8143

Investigations Concerning the Process of Cooling Rolled Stock on the Runout Table, by P. Funke.
GERMAN, per, Stahl Eisen, Vol 89, Dec 1969, pp 1446-1452.
*BISI 8261

Softening Behavior of the Blast Furnace Burden, by E. Forster.
GERMAN, per, Stahl Eisen, Vol 89, Dec 1969, pp 1473-1480.
*BISI 8308

The Economic Fabrication of Finegrained and Weldable Structural Steels of High Strength by Means of Controlled Temperature Guidance During Rolling, by W. Esche.
GERMAN, per, Stahl Eisen, Vol 90, Feb 1970, pp 179-184.
*BISI 8339

New Steel Price List Taking into Account Competition in the 70's, by R. Risser.
GERMAN, per, Stahl Eisen, Vol 90, No 3, 1970, pp 101-102.
*BISI 8315

On Reclamation of Steelmill Lubas, by P. Zabel.
GERMAN, per, Stahl Eisen, Vol 90, No 3, 1970, pp 126-131.
*HB 8115

Production and Processing of Continuous Cast Semiproducts of Square, Rectangular, Round and Similar Sections, by H. Moritz.
GERMAN, per, Stahl Eisen, Vol 90, No 4, 1970, pp 167-175.
*HB 8173

Scientific
Materials (Contd)

On the Future of Steelmaking, by G. Th. Wuppermann.
GERMAN, per, Stahl Eisen, Vol 90, No 8, 1970, pp 381-383.
*HB 8187

Fundamentals of Plant Size Degression as Affecting Construction and Processing Costs with Conventional Steelmaking Methods, by H. Schenck.
GERMAN, per, Stahl Eisen, Vol 90, No 8, 1970, pp 383-389.
*HB 8188

The New Basic Oxygen Steel Plant of Dillinger Huettnerwerke AG, by K.-H. Bauer.
GERMAN, per, Stahl Eisen, Vol 90, No 8, 1970, pp 389-397.
*HB 8189

Computerized Plotting of the Contour Lines of Surfaces Defined by Points, by H. Hoppe.
GERMAN, per, Techn Mitt Krupp Forsch Ber, Vol 27, No 2, 1969, pp 37-40.
*BISI 8310

Thermal Conductivity of Several Cemented Carbide Composition at Elevated Temperatures, by W. Michel.
GERMAN, per, Technische Mitteilungen Krupp, Forschungsberichte, Vol 27, No 3-4, 1969, pp 79-82.
HB 8181

Development of Tonnage Steels, by D. Schauwinhold.
GERMAN, per, Thyssenforschung, Vol 1, No 1, 1969, pp 20-29.
BISI 7809

Development of the Oxygen Blowing Process Up to Continuous Refining, by T. Kootz, H. Schmeidel.
GERMAN, per, Thyssenforschung, Vol 1, No 2, 1969, pp 49-60.
BISI 7580

Nondestructive Detection of Cracks in Structural Steel Members by the Directcurrent Potential Probe Method, by M. Straesser.
GERMAN, per, Thyssen Forschung, Vol 1, No 3, 1969, pp 116-121.
*BISI 8271

Contribution to the High-frequency Combustion System for Carbon and Sulphur Determination in Metal Samples, by E. Schoffmann.
GERMAN, per, Thyssenforschung, Vol 1, No 3, 1969, pp 121-123.
*BISI 8300

Scientific
Materials (Contd)

Study of the Scaling of Several Types of Steel,
by H. P. Haastert, et al.
GERMAN, per, Thyssenforschung, Vol 1, No 4,
1969, pp 127-135.
HB 8155

Corrosivity of Weld Metal Deposited from Special
Electrodes for Present-day Shipbuilding, by
W. Hummitzsch.
GERMAN, per, Thyssenforschung, Vol 1, No 4,
1969, pp 161-166.
*HB 8185

Cathodic Protection of Underground Oxygen Pipes,
by R. Flossmann, et al.
GERMAN, per, Thyssenforschung, Vol 1, No 4, 1969,
pp 167-170.
BISI 8238

Changes in Plastics Caused by Environment, by
C. M. v. Meysenbug, 32 pp.
GERMAN, per, Werkstoffe und Korrosion, Vol 18,
No 5, 1967, pp 411-419.
NAV/NIC/Tran-3042-70

The "Critical Moisture" Concept in the Atmospheric
Rusting of Steel, by K. Barton.
GERMAN, per, Werkstoffe Korros, Vol 21, No 2,
1970, pp 85-88.
*BISI 8349

Effect of Rust on the Progress of Atmospheric
Corrosion of Steel, by K. Barton.
GERMAN, per, Werkstoffe Korros, Vol 21, No 3,
1970, pp 182-184.
*BISI 8350

Influence of Carbon on Curie Temperature and
Spontaneous Magnetisation of Nickel-Iron Alloys
Containing 20-50% Nickel, by E. Adler,
C. Radeloff.
GERMAN, per, Zeit Angew Phys, Vol 26, No 2, 1969,
pp 105-113.
BISI 7628

On the Cause of Large Grains in Irons,
by E. Scheil, 8 pp.
GERMAN, per, Z. Anorg. Chem. 211, 1935,
pp. 249-256.
*NBS TT 70-57835

Scientific
Materials (Contd)

The Diffusion of Carbon in Sintered
Steel Alloys, by W. Seith, 18 pp.
GERMAN, per, Z. Anorg. Chem. 262, 1950
pp. 129-146.
*NBS TT 70-57838

On the Pressing and Ogglomeration of
Metal Powders, by G. Tammann, 4 pp.
GERMAN, per, Z. Elektrochem, vol 15,
1909, pp. 447-450.
*NBS TT 70-57867

Measurement of Electrotransport in Au
Cu Alloys, by O. Eisenhut, 8 pp.
GERMAN, per, Z. Elektrochem, vol 37,
1931, pp. 466-473.
*NBS TT 70-57868

On Diffusion in Metals, by G. Grube,
8 pp.
GERMAN, per, Z. Elektrochem, vol 38,
1932, pp. 799-807.
*NBS TT 70-57875

Electrotransport and Diffusion in Some
Soft Metals, by C. Tubandt, 7pp.
GERMAN, per, Z. Elektrochem, vol 39,
1933, pp. 500-506.
*Nat. Bur. Stand. TT 70-57877

The Use of Quantitative Spectroanalysis
on Al-Mg Alloys, by W. Seith, 9 pp.
GERMAN, per, Z. Elektrochem, vol 43,
1937, pp. 342-350.
*NBS TT 70-57869

The Growth of Metal Crystals, by L. Graf,
30 pp.
GERMAN, per, Z. Elektrochem, vol 48,
1942, pp. 181-210.
*NBS TT 70-57872

The Measurement of Oxidation Rates of
Metals and the Growth of the Oxide
Film on the Metal Surface, by F. Todt,
11 pp.
GERMAN, per, Z. Elektrochem, vol 53,
1948, pp. 132-142.
*NBS TT 70-57874

Graphical Representation of the Sheer Stress Ratios in Face Centre Cubic Crystals, by J. Diehl, GERMAN, per, Zeits. fur Metallkunde, Vol 45, No 3, 1954, pp 489-492.
NLL Ref: 3774.5 (1910)

Size on Distribution Analysis, by H. E. Exner. GERMAN, per, Zeit Metallk, Vol 57, No 10, 1966, pp 755-763.
*BISI 8239

The Effect of Ag On Discontinuous Precipitation in Lead Sodium Solid Solutions, by K. Mader. GERMAN, per, Zeit fur Metallkunde, Vol 60, May 1969, pp 475-481.
C.E. Trans 5252

The Plasticity of Cu-Co Single Crystals with and Without Precipitates, by M. Witt. GERMAN, per, Zeit fur Metallkunde, Vol 60, May 1969, pp 482-487.
C.E. Trans 5253

Direct Observation of Short Range Order in a Cu-Al Alloys, by W. Gaudig. GERMAN, per, Zeit fur Metallkunde, Vol 60, May 1969, pp 488.
C.E. Trans 5254

Explanation of Electrolytic Current in Amalgam and its Alloys, by C. Wagner, 6 pp. GERMAN, per, Z. Phys. Chem. B15, 1932, pp. 347-352.
*NBS TT 70-57856

The Study of the Electrical Characteristics of Hg and its Alloys, II, C. Wagner, 3 pp. GERMAN, per, Z. Phys Chem, vol 164, 1933, pp. 231-233.
*NBS TT 70-57857

The Mechanism of Diffusion in Cubic Metals, by G.M. Neumann, 5 pp. GERMAN, per, Z. phys. Chem N.F. 51, 1966 pp. 165-169.
*NBS TT 70-57833

Use of Bromophenol Blue for Distinguishing Between Limestone and Dolomite, by W. A. Schnitzer. GERMAN, per, Zement-Kalk-Gips, No 1, 1967, pp31-32.
*USDL/BR TT 70-59036

The Effect of Cathode Insulation on the Process of Aluminum Electrolysis, by E. Balazh, Ya. Adam. HUNGARIAN, per, Acta Tech Acad Sci Hung, Vol 55, No 3-4, 1966, pp 327-339.
ATS HJ-5432

The Production of High-Temperature Air Blast, by I. Pentek. HUNGARIAN, per, Koh Lapok, Vol 102, No 10, 1969, pp 421.
*BISI 8290

High-Temperature Milling, by L. Deacu. HUNGARIAN, per, Metal Abstract, Vol 11, Aug 1969, pp 73-77.
*ACSI J-8413
*FSTC-HT-23-713-70

Technical Development in Foundries Highlighted, by Marton Peto, 17 pp. HUNGARIAN, per, Ontode, Budapest, No 2, Feb 1970, pp 34-40.
JPRS 50582

A Contribution to the Conductometric Determination of Slag Basicity, by E. Donati, et al. ITALIAN, per, Met Ital, Vol 59, Feb 1967, pp 76-81.
BISI 7054

The Metallurgical Problems of Precipitation Steels in Tubes and Pipes, by F. Rinaldi, A. Pugno. ITALIAN, per, Met Ital, Vol 60, Nov 1968, pp 919-930
BISI 7563

Temper Brittleness in Carbon Steels, by W. Nicodemi. ITALIAN, per, Met Ital, Vol 61, No 1, 1969, pp 8-16.
BISI 7562

The Manufacture of Silicon Steel for Electrical Sheet in the LD Converter, by J. Oggero, et al. ITALIAN, per, Met Ital, Vol 61, No 6, 1969, pp 246-250.
BISI 7932

The Production of Metal Sections by the Plastic Deformation of Powder Materials, by G. Rossi. ITALIAN, per, Met Ital, Vol 61, June 1969, pp 260-266.
*BISI 8375

Scientific
Materials (Contd)

Coal in Latin American Steelmaking, by
M. de L. Bohomoletz.
ITALIAN, per, Rev (ILFA) Latin Amer Sid, May
1969, pp 34-35.
*BISI 8319

The Corrosion Resistance of Austenitic Stainless
Steels in a Nitric Acid Environment II - Types
AISI 304 and 304L Steels, by L. Marchesini,
G. Scarinci.
ITALIAN, per, Tecnica Italiana, Vol 33, 1968,
pp 31-42.
BISI 7613-II

Study on the Rust Layer on Atmospheric Corrosion
Resistant Low Alloy Steels - II, by N. Masuko,
Y. Hisamatsu.
JAPANESE, per, Boshoku Gijutsu, Vol 17, No 12,
1968, pp 539-542.
BISI 7852

The Effect of Alloying Elements on Sea Water
Corrosion of Steel I - Laboratory Test Results,
by J. Satake.
JAPANESE, per, Boshoku Gijutsu, Vol 18, No 8,
1969, pp 355-360.
*BISI 8371

Pressura Leaching of the Mixture of Manganese Ore
and Pyrite, by S. Sakairi.
JAPANESE, per, Iwate Daigaku Kogakubu Kenkyu Hokoku,
Vol 18, 1965, pp 91-96.
*BISI 8318

Manufacture of Formed Coke by Hot-Briquetting
Method - IV, by Y. Yoshida.
JAPANESE, per, J Fuel Soc Japan, Vol 48, No 510,
Oct 1969, pp 738-745.
*BISI 8316

High Rate Operation of Large-scale Coke Ovens,
by S. Matsuzawa.
JAPANESE, per, J. Fuel Soc Japan, Vol 48, No 510,
Oct 1969, pp 754-765.
*BISI 8317

On an Apparatus for Tensile Testing Under High
Hydrostatic Pressure, by S. Yoshida, A. Oguchi.
JAPANESE, per, J. Soc Mat Sci Japan, Vol 18, No 192
Sept 1969, pp 779-783.
BISI 7974

Study of Blast Furnace Shaft as Packed Bed Using
Experimental Model, by K. Otake.
JAPANESE, per, Kawasaki Steel Techn Rep, Vol 1,
No 2, 1969, pp 24-32.
*BISI 8354

Scientific
Materials (Contd)

Curling of Cold-Rolled Thin Strips, by E. Tanaka.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 1, 1969,
pp 4-9.
BISI 7773

The Influence of Third Elements on the Structure
of Unidirectionally Solidified Metastable Iron-
Carbon Alloys, by M. Ibaraki.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 2, 1969,
pp 214-219.
*BISI 8255

Analytical Study of Solidification and Micro-
segregation for Columnar Crystal, by I. Hagiwara,
M. Kudo.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 2, 1969,
pp 249-252.
*BISI 8246

Effect of the Strain Rate on Tensile Properties
of a Low Carbon Steel, by G. Mima.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 5,
1969, pp 531-536.
*BISI 8379

Decarburization of Low Ni and Cr Cast Iron, by
A. Kondo, S. Doi.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 6,
1969, pp 646-650.
BISI 8050

Nitrogen Damping Peaks of Iron Alloys Containing
Wolf-Ram, by K. Soeno.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 7, 1969,
pp 786-790.
*BISI 8267

Cast Structure of Aluminium Ingot Solidified Under
High Pressure, by A. Suzuki.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 7, 1969,
pp 830-833.
*BISI 8245

On the Origin of Coarse Grains in Al0.2% Cu Alloy
Ingots Solidified Under a High Pressure, by
A. Suzuki, et al.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 7, 1969,
pp 834-839.
*BISI 8247

Quantitative Study of Microsegregation in a Low-Alloy
Steel Ingot, by A. Suzuki, et al.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 7, 1969,
pp 839-844.
*BISI 8244

Scientific
Materials (Contd)

Amplitude Dependent Internal Friction of Iron Containing Small Amounts of Carbon and Nitrogen, by K. Furusawa.
JAPANESE, per, Nippon Kinzoku, Vol 33, No 9, 1969, pp 985-991.

*BISI 8274

On the Relationship Between the Tensile Properties and Precipitation Temperature of a Cb-added Carbon Steel, by K. Nishida.

JAPANESE, per, Nippon Kinzoku, Vol 33, No 9, 1969, pp 1077-1083.

*BISI 8277

Hydrochloric Acid Treatment of Fayalite and Its Hydrogen Reduction Product for the Extraction of Iron, by T. Yanagihara.

JAPANESE, per, Nippon Kinzoku, Vol 33, No 9, 1969, pp 1083-1086.

*BISI 8336

Determination of Columbium in Iron and Steel by Extraction Spectrophotometry, by T. Sakaki.

JAPANESE, per, Nippon Kinzoku, Vol 33, No 9, 1969, pp 1092-1098.

*BISI 8272

Elastic Anisotropy and Its Temperature Dependence of Single Crystals of 63% Fe - 32% Ni - 5% Co Alloy, by H. Masumoto.

JAPANESE, per, Nippon Kinzoku, Vol 33, No 11, 1969, pp 1299-1303.

*BISI 8360

Temperature Dependence of the Tendency for Stress Relaxation and Delayed Fracture in Ferrous Martensite, by I. Tamura, et al.

JAPANESE, per, Suiyokai-shi, Vol 16, Oct 1968, pp 450-453.

BISI 8196

Manufacture of Superfluxed Sinter and Its Use in the Blast Furnace, by K. Kusuno.

JAPANESE, per, Techn. Rep. Fuji Iron and Steel, Vol 17, No 1, 1968, pp 1-12.

BISI 7404

Effect of Metallic Salts in Weather Stability of Plasticized Polyvinyl Chloride on Sheet Steel, by Y. Oki.

JAPANESE, per, Techn Rep of Tokyo Kohan Co Ltd, Vol 17, Dec 1968, pp 48-56.

*BISI 8298

Scientific
Materials (Contd)

Toughness of Steel and Behavior of Hydrogen in Steel (11) Numerical Consideration of Hydrogen Diffusion from Steel and Its Toughness, by S. Murayama.

JAPANESE, per, Tetsu-to-Hagane, Vol 41, 1955, pp 1044-1047.

*CFSTI TT 70-57185

Siliconizing of Iron, by M. Someno.

JAPANESE, per, Tetsu-to-Hagane, Vol 42, 1956, pp 360-361.

*CFSTI TT 70-57187

Toughness of Steel and Behavior of Hydrogen in Steel, (111) Hydrogen Diffusion from Steel in Hot Rolling and in Stress Loading at Room Temperature, by S. Murayama.

JAPANESE, per, Tetsu-to-Hagane, Vol 43, 1957, pp 328-329.

*CFSTI TT 70-57184

Use of R.I. Tracer in Blast Furnace Operations, by K. Miyagawa.

JAPANESE, per, Tetsu-to-Hagane, Vol 51, No 10, 1965, pp 1742-1744.

*BISI 8352

Anisotropic Behavior of Prestrained Sheet Steels and Subsequent Formability, by K. Yonshida, et al.

JAPANESE, per, Tetsu-to-Hagane, Vol 55, Jan 1969, pp 26-47.

BISI 7499

Effect of Rotary Vibration on the Solidification Structure of (Steel) Ingots, by Y. Sakamoto, et al.

JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 3, Paper 84, 1969, p S84.

HB 7852

Method of Cooling Basic Oxygen Furnace Lances and Their Nozzles, by K. Kunioka, T. Tada.

JAPANESE, per, Tetsu-to-Hagane, Vol 55, 1969, No 3, Lecture 88, p S88.

HB 7881

Installation of an Auxiliary Lance on the Basic Oxygen Furnace, by Y. Nagano, et al.

JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 3, Lecture 89, 1969, p S89.

HB 7887

On the Desulfurization Reaction During the Refining of Stainless Steel (In the Arc Furnace). Part I. by T. Fukuyama, et al.

JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 3, Lecture 118, 1969, p S118.

HB 7924

Development of an Automatic Fluorescent Magnetic Particle-Testing Device for Square-Section Billets, by H. Suzuki, et al.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 3, Lecture 271, 1969, p S271.
HB 8016

Technical Review on the Continuous Casting of Steel - present and Future Trend, by Y. Shimokawa.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 4, 1969, pp 298-325.
*BISI 8312

Study of Mineralogical and Metallurgical Properties of Synthetic Calcium Ferrite, by K. Kojima, et al.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 7, 1969, pp 669-681.
BISI 7617

Analysis of Thermal Stresses in Ingot Moulds, by T. Kiratani.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 9, 1969, pp 789.
*BISI 8265

The Effect of Titanium Addition on the Strength of Molybdenum Steels, by K. Nishida.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 9, 1969, pp 813.
*BISI 8264

Note on the Advantages of Large Blast Furnaces, by M. Higuti, K. Shiobara.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 11, Lecture 8, 1969, p S398.
HB 8054

Effect of Suction on the Hot Strength of Iron-Ore Sinter, by H. Soma, M. Kinoshita.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 11, Lecture 48, 1969, p S438.
HB 8053

Development of a New Process for the Ignition of Sinter Mixes and Its Application, by A. Shigemo, et al.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 11, Lecture 49, 1969, p S439.
HB 8092

Use of Fine Materials in (Iron-Ore) Sintering, Part I., by A. Morita, et al.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 11, Lecture 50, 1969, p S440.
HB 8093

Scrap Charges in Basic Oxygen LD Process Increased by Oxy-Fuel Blowing, by S. Yamamoto, K. Shiro.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 11, Lecture 97, 1969, p S487.
HB 7504

Behavior of Nitrogen During Tapping. Part I., by M. Ishiguro, N. Okubo.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 11, Lecture 102, 1969, p S492.
HB 8101

Effect of Atomic Ratio of Ti/(Ti+Cb) on the Creep Repture Strength of Type 304 Stainless Steel, by T. Shinoda, R. Tanaka.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 11, Lecture 169, 1969, p S559.
HB 7790

Effect of Various Operating Conditions in L/D Converters, by S. Asai.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 12, 1969, pp 1030-1040.
*BISI 8288

Determination of Suphide in Steel by Electrolysis Method, by S. Maekawa.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 13, 1969, pp 1263-1269.
*BISI 8293

Mechanism of Gas Evolution in Rimmed Steel, by K. Asamo.
JAPANESE, per, Tetsu-to-Hagane, Vol 55, No 14, 1969, pp 1312-1328.
*BISI 8370

Machinability of Calcium-Deoxidized Steel, by R. Narutaki.
JAPANESE, per, Tetsu-to-Hagane, Vol 56, No 3, 1970, pp 391-401.
*HB 8103

Preparation of Hydrogen Cyanide from Carbon Monoxide and Ammonia by the Formamide Method. VI - Preparation of HCN (Using Copper or Manganese as Packing), by T. Hatano.
JAPANESE, per, Tokyo Kogyo Shikensho Hokoku, Vol 51, No 4, 1956, pp 174-177.
BISI 8015

The Effect of Titanium and Zirconium on the Notch Toughness of Deposit Metal in Mild Steels, Report i, by H. Mikashima.
JAPANESE, per, Yosetsu Gakkaishi, Vol 38, No 6, 1969, pp 623.
*BISI 8270

Improvement of Fatigue Strength of Welded Steel Joints by Hot Galvanizing. Report No 4, Residual Stress and Aging Effect of Welded Steel Joints Heated in Metal Bath and Water Cooled, by I. Masumoto.

JAPANESE, per, Yosetsu Gakkaishi, Vol 38, No 8, 1969, pp 847-856.

*BISI 8268

Delayed Failure Due to Hydrogen in High-Strength Steels Subjected to Simulated Welding Thermal Cycles, by H. Nakamura.

JAPANESE, per, Yosetsu Gakkaishi, Vol 38, No 9, 1969, pp 1021-1034.

*BISI 8365

Effect of Diffusivity of Hydrogen in Steel on the Delayed Fracture of Steel I-Relationship Between Applied Stress Diffusivity of Hydrogen and Delayed Fracture of Steel, by I. Onishi.

JAPANESE, per, Yosetsu Gakkaishi, Vol 38, No 9, 1969, pp 1043-1050.

*BISI 8289

Energy Measurements on Arc Furnaces During Normal Operations, by E. Matula.

POLISH, per, Gospodarka Paliwami i Energia, Vol 1, 1969, pp 21-26.

BISI 8249

Investigation of the Crystallization Process of Fe SO₄, 7H₂O from Waste Pickle Liquor in the Vacuum Crystallizer System, by Z. Kubas, et al.

POLISH, per, Hutnik, Vol 33, No 7-8, 1966, pp 294-299.

BISI 6987

The Effect of Quenching and Tempering and Strain Aging on the Ductile-brittle Transition Temperature of Rimmed and Aluminium-killed Low-carbon Steels, by J. Haas.

POLISH, per, Prace Inst Hutn, Vol 20, No 2, 1968, pp 63.

*BISI 8275

Rapid Methods for the Determination of Fe, SiO₂ and CaO in the Operational Analysis of Raw Sinter Mix, by J. Inglot, M. Lawecka.

POLISH, per, Prace Inst Hutn, Vol 20, No 6, 1969, pp 391-395.

BISI 8023

Effect of Thermal Demagnetization Below the Curie Point on the Magnetic Permeability of Transformer Sheets, by G. Soltysik, et al.

POLISH, per, Prace Inst Hutn, Vol 21, No 1, 1969, pp 69-71.

BISI 8335

The Use of Coke Briquets in the Manufacture of Anodes for the Electrolytic Production of Aluminum, by I. Barbu.

ROMANIAN, per, Rev Chem, Vol 20, No 4, 1969, pp 209-213.

ATS RU-5438

Calculation of the Dimensions of Ingots Based On the Weight and Wall Thickness of Castings, by L. Nedeljkovic.

SERBO-CROATIAN, per, Livarstvo, Vol 14, May-July 1967, pp 85-88.

BISI 7285

Bibliographical Compilation on Cementation, by F.R. Gomez, 20 pp.

SPANISH, per, Rev. Metal. CENIM, 2, 1966 pp. 57-76.

*CFSTI TT 70-59060

Available from Nat. Bur. Stand. Only

Influence of An Alloy Element on the Penetration Curve of C in the Cementation Process, by F. Munoz del Corral, 6pp.

SPANISH, per, Rev Metal. CENIM, 2, 1966 pp. 88-93.

*Nat. Bur. Stand. TT 70-59059

Electrolytic Separation of Phases of an Alloy: Application to the Study of Diffusion Kinetics of Metallic Elements in Phases with the Effect of Isothermal Treatment, by N. Valverde, 9pp.

SPANISH, per, Rev. Metal. CENIM, 2, 1966 pp. 126-134.

*CFSTI TT 70-59058

Available from Nat. Bur. Stand. only

Future Alloy Supplies for Steel Works, by C.-H. Rosendahl.

SWEDISH, per, Jernkon Ann, Vol 152, 1968, pp 387-419.

*BISI 8314

Sampling of Steel Castings,

SWEDISH, Swedish Standard, SIS 11 01, 2 Apr 1968. E.E. Trans 1912

Vietnamese Electroplating Industry Discussed, 13 pp.

VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc, Hanoi, No 12, 1969, pp 22-26.

JPRS 50670

Pursuit Problem, by N. N. Krasovskiy, 5 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR,
Moscow, Vol 191, No 2, 1970, pp 270-272.
JPRS 50569

Number of Errors Correctable by the Reed-Muller
Code, by R. Ye. Krichevskiy, 5 pp.
RUSSIAN, per, Doklady Akademii Nauk SSSR, Moscow,
Vol 191, No 3, 1970, pp 544-547.
JPRS 50596

The Construction of Nonbinary Correcting Arithmetic
Codes, by V. S. Tereshchenko, 14 pp.
RUSSIAN, per, Doklady Seminar Voprosy Teoriy
Elektronnykh Tsifrovyykh Matematicheskikh Mashin,
1967, No 3, pp 17-30.
AIR/FTD/MT-24-44-70

Analysis of Bending of a Sector Plate of Variable
Thickness, Clamped Along a Portion of Its Arcuate
Edge, Utilizing a High-Speed Computer, by
B. Ya. Kantor, A. P. Filippov, 9 pp
RUSSIAN, per, AN SSSR. Izv Mekh i Mash, No 1,
1962, pp 121-124.
AIR/FTD/MT-24-424-69

On the Distribution of Values of the Weierstrass
Sigma-Function, by A. A. Gol'dberg, 6 pp.
RUSSIAN, per, Izvestiya VUZ, Matematika, No 1,
1966, pp 43-46.
Dept of Navy NRL-Tran 1205

Non-Stationary Integro-Differential Transport
Equation, by S. F. Morozov, 8 pp.
RUSSIAN, per, IVUZ, Math., No 1, 1969, pp 26-31.
AEC/ANL-Tr-806-70

Application of the La Place Transformation to
the Solution of Linear Differential Equations
With Variable Coefficients, by A. G. Shevelev.
RUSSIAN, per, Ukrainskiy Matematicheskiy Zhurnal
Vol 21, No 5, 1969, pp 640-652.
*NASA TT F-13,095

Boundary Theory for Sums of Independent, Identically
Distributed Random Variables, by S. A. Molchanov.
RUSSIAN, per, Vestnik Mosk Univ., Mat., Mekhan.,
No 6, 1969, pp 3-10.
Dept of Navy APL/JHU/ CLB-3 T-621

Difference Methods of Solving the Navier-Stokes
Equations, by I. Yu. Brailovskaya.
RUSSIAN, per, Vychisl Metody i Program: Chislen
Metody v Gaz Dinamike, No 11, 1968, pp 3-18.
ATS RJ-5402

Polygonization, by J. Friedel.
FRENCH, rpt, Les Dislocations, Paris, 1956,
pp 190-194.
*CFSTI TT 70-58227

Integrated Study of Blast-Crater Dimensions, by
M. Boulon, J. Gautier, 45 pp.
FRENCH, per Etude Synthese Dimensions des Crateres
d'Explosion, Part I.
AEC/UCRL-Tr-10459-70

The Statistical Distribution of Electro-Negative
Gases with High Field Strength, by W. Legler.
GERMAN, per, Zeit Naturforschung, Vol 16a, 1961,
pp 253-261.
C.E. Trans 5308

Description of Language and Algum Translator for
UMC Machines, by J. Leszczynski. 10 pp.
POLISH, per, Algorytmy, Vol 3, No 5, 1965,
pp 123-133.
AIR/FTD/MT-23-499-69

Mathematical Representation Models of Coal Mills,
by Z. Wilczynski.
POLISH, per, Pomiary, Automat., Kontrola, Vol 15,
No 1, 1969, pp 24-26.
C.E. Trans 5292

Characterization of 2-Type Diagonal Matrices and
the Application to Order Statistics, by
Yoshimasa Ukita, 11 pp.
JAPANESE, per, Hokkaido Gakugei Daigaku Kiyo,
Dai 2-bu, No 6, 1955, pp 66-75.
AEC/ORNL-Tr-2284-70

Mechanical, Industrial, Civil &
Marine Engineering

Basic Trends in Automotove Engine Development,
by S. B. Chistosvonnov, A. S. Aysenberg, 12 pp.
RUSSIAN, per, Avtomobil'naya Promyshlennost',
Moscow, No 3, 1970, pp 1-4.
JPRS 50706

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Plans for Motor Vehicle Production Outlined,
by K. P. Ivanov, 5 pp.
RUSSIAN, per, Avtomobil'naya Promyshlennost',
Moscow, No 4, 1970, pp 1-3.
JPRS 50602

Determination of the Mechanical Properties of
Steam-Pipe Metal, by V. G. Borisov, and N.V. Bugaf,
RUSSIAN, per. Energetik, Vol 16, No 1, 1968,
pp 27-29.
NLL Ref: 9022.09 (5051)

Civil, Industrial, and Agricultural Buildings,
by Viktor Yevgen'yevich Krasenskiy,
Leonid Yevlampiyevich Fedorovskiy, 492 pp.
RUSSIAN, bk, Grazhdanskiye, Promyshlennyye i
Sel'skokhozyaystvennyye Zdaniya, Moscow, 1968,
pp 1-117, 183-301.
JPRS 50529

Machines for Transport Within Ports, by
F. I. Sokolov, 102 pp
RUSSIAN, per, Gruzo-Pod'emnye Mashiny,
pp 148-248.
ARM/FSTC/HT-23-382-70

Transactions of the Vedeneyev All-Union Scientific
Research Institute of Hydraulic Engineering, 293 pp
RUSSIAN, per, Izvestiya Nauchno-Issledovatel'skogo
Instituta Gidrotekhniki imeni B. Ye. Vedeneyeva,
Vol 86, 1968.
CFSTI TT 69-55062

Performance Reliability of Switching Surge Diverters
in H.V. Networks, by A. O. Spivakovskiy.
RUSSIAN, per, Izv Ak Nauk SSSR Energ i Transport,
No 6, 1967, pp 37-45.
C.E. Trans 5248

Theory of Resistance of a Ship During Motions in
Waves, by Hasking.
RUSSIAN, per, Izvestiya AN SSSR, OTN, Mekh i Mash,
No 2, 1959, pp 46-56.
*Dept of Navy/NSRDC

Influence of the Position of an Elliptical Hole on
Stress Concentration in a Stretched Orthotropic
Plate, by S. G. Lekhnitskiy, V. V. Soldatov. 10 pp.
RUSSIAN, per, Izv OTN Mekhanika i Mashinistroyeniye,
No 1, 1961, pp 3-8.
AIR/FTD/HT-23-653-69

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

The Chromization of Ferro-Chrome Alloys at
High Temperatures, by R. P. Krentsis.
RUSSIAN, per, Izv VUZ Chern Met, No 12, 1960,
pp 5-11.
*CFSTI TT 70-58195

Measurement of the Viscosity of a Lubricant Used
In Hydraulic vibration Dampers, by V. Ye. Kopylov,
A. N. Trubin. 5 pp.
RUSSIAN, per, Izv VUZ Neft' i Gaz, Vol 12, No 1,
1969, pp 33-35.
AIR/FTD/HT-23-178-70

Industrialized and Mechanized Construction in
Estonia Reported, by U. B. Yurisoov, 12 pp.
RUSSIAN, per, Mekhanizatsiya Stroitel'stva,
Moscow, No 4, 1970, pp 10-16.
JPRS 50562

Calculation of the Metacentric Height from the
Angle of Heel in the Turning Circle,
by L. Akseyutin,
RUSSIAN, per. Morskoy Flot, No 11, 1968, p 17-.
NLL Ref: 9022.065 (3120)

Modular and Panel Construction Compared, by
Ye. Al'tshuller, Yu. Dushnov, 7 pp.
RUSSIAN, per, NaStroykakh Rossii, Moscow,
No 2, 1970, pp 44-46.
JPRS 50583

Hydraulic Transport of Viscous Crude Oils in Pipe
Lines, by A. Sh. Asaturyan, VI. Chernikin.
RUSSIAN, per, Neft Khoz, Vol 43, No 7, 1965,
pp 56-59.
ATS RJ-5409

Failure to Introduce Industrial Engineering Scored,
by V. Zyabrev, A. Provotorov. 5 pp.
RUSSIAN, np, Pravda, 11 Dec, 1969, p 3.
AIR/FTD/HT-23-162-70

Ukrainian Industrial Construction Described,
by M. I. Burka, 9 pp.
RUSSIAN, per, Promyshlennoye Stroitel'stvo,
Moscow, No 2, 1970, pp 4-6.
JPRS 50562

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Determination of Optimum Bottom-Trawling Speed,
by M. M. Rozenshteyn.
RUSSIAN, per, Rybnoe Khoz, Vol 42, No 5, 1966,
pp 24-27.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 147

Axial Compression of Sandwich Cylinders and Panels
with Corrugated Interlayer and Elastic Frames,
by B. A. Panasenka. 14 pp.
RUSSIAN, per, Samoletostroyeniye i Tekhniki Voz-
dushnogo Flota, No 4, 1966, pp 52-61.
AIR/FTD/MT-24-316-69

New Rural Construction Branch Described, by
V. Gushchin, 6 pp.
RUSSIAN, per, Sel'skoye Stroitel'stvo, Moscow,
No 4, 1970, pp 6-7.
JPRS 50700

Contributions of Science to Production Processes,
11 pp.
RUSSIAN, np, Sovetskaya Belorussiya, Minsk,
25 Feb 1970, pp 1, 3.
JPRS 50512

Cooling System for Icebreaker Power Plant without
Using Sea Water, by M. L. Aleksandr, and
V. V. Klimov,
RUSSIAN, per, Sudostroenie, No 1, 1969, p 41-.
NLL Ref: 9022.065 (3109)

Analysis of the Performance Data of the Waste-Heat
Plant, with Turbo-Generator, Installed on the
Leninakan Series Tankers, by V. I. Enin,
RUSSIAN, per, Sudostroenie, No 2, 1969, p 24-.
NLL Ref: 9022.065 (3128)

An Honorary Task for Shipbuilders, by
Ye. N. Shaposhnikov.
RUSSIAN, per, Sudostroyeniye, No 12, 1969, pp 3-4.
*Dept of Interior
BCF/OFF

"Meridian" Type Large Freezer-trawler, by
V. A. Zavarin.
RUSSIAN, per, Sudostroyeniye, Vol 59, No 12,
1969, pp 17-18.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 155

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Facilities Aboard Fish-catching and Fish-processing
Ships, by K. I. Kononov.
RUSSIAN, per, Sudostroyeniye, Vol 59, No 12,
1969, pp 26-30.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 135

All-Union Conference on Fish-Finding Equipment.
RUSSIAN, per, Sudostroyeniye, No 12, 1969,
pp 61.
*Dept of Interior
BCF/OFF

Optimized Management of Fishing Flotillas, by
D. A. Chechin.
RUSSIAN, per, Sudostroyeniye, Vol 59, No 12,
1969, pp 62-66.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 127

Rationalized Production Planning and Techniques
of Building Fishing Vessels, by V. A. Nedashovenko.
RUSSIAN, per, Sudostroyeniye, Vol 59, No 12,
1969, pp 67-73.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 141

Marine Electric Drives on Ships, by
N. M. Khomyakov, V. S. Mikhaylov, 27 pp.
RUSSIAN, per, Sudostroyeniye, 1969, pp 141-160,
271-276.
Dept of Navy NIC Trans 3041

Catamaran Trawler-seiner "Experiment", by
I. M. Semenov.
RUSSIAN, per, Sudostroyeniye, Vol 60, No 1,
1970, pp 5-10.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 148

New Equipment Introduced in Shipbuilding, by
B. Butoma, 5 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad, Jan 1970,
pp 3-4.
JPRS 50666

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Performance of Large Hydrofoil Evaluated,
by I. I. Yerlykin, 6 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad,
No 2, Feb 1970, pp 3-6.
JPRS 50562

New 60-Ton Astrakhan' Floating Crane Described,
by V. N. Bezzhonov, V. I. Pankov, 13 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad,
No 3, Mar 1970, pp 3-7.
JPRS 50605

Tanker Launching, Joining Described, by
I. F. Alekseyev, N. N. Yakimov, 9 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad, Mar
1970, pp 44-49.
JPRS 50636

Flotation Assembly Joint Welding Described, by
E. G. Barsukov, V. N. Mamchenko, 5 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad,
No 3, Mar 1970, pp 52-54.
JPRS 50583

Welding Two Ship Halves Together Described,
by N. P. Sidorov, N. N. Lobzov, 7 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad,
Mar 1970, pp 56-59.
JPRS 50583

Preparations for Joining Ships Afloat Discussed,
by V. S. Volkov, 6 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad, No 3,
1970, pp 54-56.
JPRS 50692

Launching and Joining the Ship '50 LET VLKSM',
by Kh. V. Drikhal', 6 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad, No 3,
1970, pp 59-61.
JPRS 50700

History of Soviet Shipbuilding Outlined, by
B. Butoma, 7 pp.
RUSSIAN, per, Sudostroyeniye, Leningrad, No 4,
Apr 1970, pp 3-6.
JPRS 50700

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Fish-Processing Equipment, by V. Chupakin,
V. Doremenco.
RUSSIAN, bk, Tekhnologicheskoye Oborudovaniye
Ryboobrabatyvayushchikh Zavodov, 1966, 531 pp.
Dept of Interior
BCF/OFF
A-37-March 1970-No 111
On Loan

Farm Machinery and Tractor Output Increases,
9 pp.
RUSSIAN, per, Traktory i Sel'khoz mashiny, Moscow,
No 4, 1970, pp 1-4.
JPRS 50671

Construction of Tobol'sk River Port Detailed,
by A. G. Matlin, 5 pp.
RUSSIAN, per, Transportnoye Stroitel'stvo,
Moscow, No 3, Mar 1970, pp 20-22.
JPRS 50700

The Problem of Disposing the Fishing Fleet in
Fishing Areas and Fishing Periods, by
V. O. Zhurakov. 9 pp.
RUSSIAN, per, Trudy AtlantNIRO, No 17, 1967,
pp 29-38.
Dept of Interior
BCF/OFF
A-37-March 1970-No 32
On Loan

Approximate Solution of the Two-Dimensional
Problem in the Hydrodynamic Theory of Gas
Lubrication of Radial Sliding Bearings, by
Sh. Kh. Bikubulatov.
RUSSIAN, per, Trudy Kazanskiy Aviatsionny
Instituta, Seriya Prikladnaya Mekhanika, No 95,
1968, pp 3-11.
*NASA TT F 13,099

Investigation of Certain Local Resistances in
Pipes Handling Flows of Final Molasses, by
Z. S. Shlipchenko.
RUSSIAN, per, Trudy Kievsk Tekhnol Inst Pishch
Prom, No 25, 1962, pp 36-41.
ATS RJ-5414

A New Empirical Relationship for Determining the
Friction Factor λ in Pipes Handling Flows of
Final Molasses, by Z. S. Shlipchenko.
RUSSIAN, per, Trudy Kievsk Tekhnol Inst Pishch
Prom, No 25, 1962, pp 41-44.
ATS RJ-5413

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Study of the Degasification Process in Carbon-Pitch Mixes During Baking, by V. Z. Volkov.
RUSSIAN, per, Tsvet Metal, Vol 40, No 1, 1967, pp 66-68.
ATS RJ-5436

The Direction of Planning and Choice of Rational Design Solutions for Modern Aluminum Plants, by A. Ye. Bazhenov.
RUSSIAN, per, Tsvet Metal, Vol 41, No 8, 1968, pp 5-9.
ATS RJ-5422

Experience with the Start-up and Operation of Large Aluminum Reduction Cells with Horizontal Contact Spikes, by A. A. Volodin.
RUSSIAN, per, Tsvet Metal, Vol 42, No 4, 1969, pp 59-64.
ATS RJ-5421

Effect of Baking Conditions on Service Life of High-Capacity Electrolytic Cells, by Yu. S. Lozovoy.
RUSSIAN, per, Tsvet Metal, Vol 42, No 12, 1969, pp 32-35.
ATS RJ-5423

Main Trends of Radically Improving the Main Water Drainage of Mines, by V. G. Geier, S. S. Malygin, 9 pp.
RUSSIAN, per, Ugol, Vol 40, No 7, 1965, pp 14-46.
AEC/ORNL-Tr-2272

Automotive Factories Produce New Models, by W. Ya. Selifonov, 6 pp.
RUSSIAN, per, Za Rulem, Moscow, No 4, 1970, pp 2-5.
JPRS 50546

Reporters Make Tour of Ul'Yanovsk Motor Works, by A. Brodskiy, N. Semina, 9 pp.
RUSSIAN, per, Za Rulem, Moscow, No 4, 1970, pp 8-10.
JPRS 50546

Coating Wire with Superconducting Compound, by V. I. Arkharov, B. S. Borisov.
RUSSIAN, per, Zashchitnyye Pokrytiya na Metallakh, No 2, 1968, pp 178-184.
AIR/FTD/MT-24-21-70

Construction Problems in the Far North Analyzed, by B. Berezovskiy, 7 pp.
RUSSIAN, per, Zhilishchnoye Stroitel'stvo, Moscow, No 3, 1970, pp 8-9.
JPRS 50583

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Winter Construction from Cohesive Earth in the Far North (Dam-Core Construction for the Vilyuy Hydroelectric Plant), by Ye. N. Batenchuk, G. F. Biyanov, et al. 73 pp.
RUSSIAN, per, Zimnyaya Ukladka Svyaznikh Gruntov na Krainem Severe (Stroitel'stvo Plotiny Vilyuiskoy GES), 1968,
CFSTI TT 69-55098

Jeep Submarine Used to Check Underwater Oil Installations, by Sami Dassugi, 6 pp.
ARABIC, np, al-Ahram, Cairo, 27 Apr 1970, p 3.
JPRS 50660

Study on a Model of the Charging of Blast Furnaces. Considerations Concerning Variable Geometry Throats, by J. P. Liron.
FRENCH, per, C.D.S. Circ, Jan 1969, pp 145-179.
BISI 7778

Self-Contained Respirators for Short Term Use, by J. Cretin.
FRENCH, per, Charbonnages de France Documents Techniques, No 1, 1967, pp 83-93.
C.E. Trans 5340D

Plant Inspection in Unit Operated Stations, by A. Stonner.
FRENCH, per, Energie, Vol 21, Feb 1969, pp 57-63.
C.E. Trans 5339

Construction of Santa Eulalia Dam on the Jares River, by G. Vie.
FRENCH, per, Le Genie Civil, Vol 145, No 4, 1968, pp 270-272.
*CFSTI TT 70-59011

The Schaeffler Diagram: Its Construction, Application and Accuracy, by H. Ornig.
FRENCH, per, Journal de la Soudure, No 10, 1968, pp 307-317.
E.S.B. Trans 412

Study of Self-diffusion Radiotracers in Volume and Grains of Gamma-Iron and the Alpha-gamma Allotropic Transformation, by P. Guiraldanq.
FRENCH, per, Metaux, Corrosion-industries, No 472, 1964, pp 427-455.
*CFSTI TT 70-58221

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Methods of Testing Insulation for HTR, by
P. Naudin.
FRENCH, rpt, Paper Presented at Information
Symposium on Work Concerned with Prestressed
Concrete Pressure Vessels and their Insulation,
Brussels, 18-20 Nov 1969.
E.E. Trans 1915

Contribution to the Knowledge of High-powered
Diffusion Flames, by J. Jaegle.
FRENCH, per, Rev Gen Therm, Vol 7, Dec 1968,
pp 1419-1425.
C.E. Trans 5314

Some Aspects of Welding Applied to Heavy Fabrication,
by C. Fornical.
FRENCH, per, Soudage et Techniques Connexes, Vol 22
May-June 1968, pp 217-236.
C.E. Trans 5294

The Design of Annular and Circular Foundations
for Structures of Circular Plan,
FRENCH, per, Theories et Methodes de Calcul,
No 258, June 1969, pp 841-870.
C.E. Trans 5346

Fourier Analysis and Compensation of
Stagger Errors of Semikinematic Theo-
dolite Axes, by Tibor Farkas, 18pp.
GERMAN, per, Allgemeine Vermessungen.
Karlsruhe, vol. 10, 1969, pp. 483-491.
Tr. No. 65, Feb 70
AIR/AFCRL/70-0075

Construction of Water Tanks of Reinforced Concrete
with Polyester Lining, by K. Pertermann.
GERMAN, per, Bauplanung und Bautechnik, Vol 22,
No 4, 1968, pp 179-181.
*USDI/BR TT 70-58172

Natural Arching in Tunnel Construction, by
H. Berger.
GERMAN, per, Die Bautechnik, Vol 45, No 4,
pp 109-122.
*CFSTI TT 70-58169

Assessment of the Condition of the Insulation of
Stator Windings, by R. Schuler.
GERMAN, per, Bull A.S.E., Vol 60, Aug 1969,
pp 777-785.
C.E. Trans 5325

Pressure Control in Steam Generators, by
R. Oatker.
GERMAN, per, B.W.K., Vol 3, Nov 1951, pp 361-366.
C.E. Trans 5338D

Characteristics of Cylindrical Vessels Under Internal
Pressure and High Temperature Conditions, by
K. Wellinger.
GERMAN, per, B.W.K., Vol 21, Aug 1969, pp 395-400.
C.E. Trans 5321

Results of Studies Carried Out on Defective Tubes
from Boiler Plant, by B. Schweins.
GERMAN, per, Energie und Technik, Vol 21, Mar
1969, pp 102-106.
C.E. Trans 5298

Reasons for the Introduction of Extremely Large
Trawls for Catching Deep-sea Fish, by
H.-J. Fischer.
GERMAN, per, Fischerei Forschung, Vol 6, No 1,
1968, pp 35-43.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 129

Procedure for Calculating Trawl Cable Shape and
Tension, by H. Stengel.
GERMAN, per, Fischerei Forschung, Vol 6, No 1,
1968, pp 73-84.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 150

Two High Speed Boat Unloading Processes in the
U.S.A., by I.A.T. Yu.
GERMAN, per, Fordern Heben, Vol 20, No 1, 1970,
pp 24-26.
*BISI 8341

On the Investigation of Instrumental
Errors of Universal and Transit Instru-
ments by Means of Autocollimation, by
Reiner Schwebel, 191pp.
GERMAN, rpt, German Geodetic Commission at
the Bavarian Acad. of Sciences - Ser. C.
Vol. 117, 1968.
Tr No 49, Feb 1970
AIR/AFCRL-70-0097

The Influence of MgO on Chemical Reactions of
Deposits in High Temperature Range of Oil-Fired
Boilers, by A. J. Elshout.
GERMAN, per, Mitt V.G.B., Vol 49, June 1969,
pp 182-190.
C.E. Trans 5284

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Stress Conditions in 30 Boiler Drums Covering the Period 1939-61, by G. Henjes.
GERMAN, per, Mitt. V.G.B., Vol 49, Aug 1969, pp 281-296.
C.E. Trans 5310

Trials to Determine the Most Satisfactory Start-Up Method for a Francis Turbine Using and Overrunning Clutch Between Turbine and Motor Generator, by H. Grein, et al.
GERMAN, per, Schweizerisch Bauzeitung, Vol 86, Oct 1968, pp 720-725.
C.E. Trans 5345

Study on the Shaping of Large Crankshafts and the Stresses Endured by Them, by Egon Amedick.
GERMAN, per, Stahl Eisen, Vol 87, Oct 1967, pp 1189-1198.
*BISI 8348

Defects in Overhead Traveling Cranes and Their Effects, by H. O. Hannover.
GERMAN, per, Stahl Eisen, Vol 89, Nov, 1969, pp 1300-1306.
*BISI 8257

Report on an Investigation on Ship Unloaders, by P. Wendel, et al.
GERMAN, per, Stahl Eisen, Vol 89, 1969, pp 1452-1456.
BISI 8163

Contribution to the Boiler Water Phosphate Content Controversy, by H.D. Held.
GERMAN, per, Tech Uberwach, Vol 10, 1969, pp 224-227.
C.E. Trans 5332

Tunnel Boring Machines for Extremely Hard Rock, by W. Hildebrandt.
GERMAN, per, VDI Zeit, No 2, 1968, pp 56-57.
*USDI/BR TT 70-58178

Heat Losses from Buried Pipes, by G. Flanz.
GERMAN, per, Warme und Stoffubertragung, Vol 2, No 2, 1969, pp 109-117.
C.E. Trans 5315

Surges in Pressure Pipes, by E. Wylie, W. Zielke.
GERMAN, per, Die Wasser-Wirtschaft, Vol 57, No 2, 1967, pp 91-96.
*CFSTI TT 70-58157

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Low-head Powerplants with Tube Turbines, by J. Giesecke.
GERMAN, per, Die Wasser-Wirtschaft, Vol 57, No 9, 1967, pp 326-330.
*CFSTI TT 70-58159

Low-head Powerplants with Tube Turbines, by J. Giesecke.
GERMAN, per, Die Wasser-Wirtschaft, Vol 57, No 10, 1967, pp 370-374.
*CFSTI TT 70-58160

Waterproofing Hydraulic Structures, by W. Bahr.
GERMAN, per, Die Wasser-Wirtschaft, Vol 58, No 2, 1968, pp 33-38.
*CFSTI TT 70-58165

Determining Economic Optimum of Tunnel System in Hydropowerplants, by F. B. Pedersen.
GERMAN, per, Die Wasser-Wirtschaft, Vol 58, No 2, 1968, pp 44-47.
*USDI/BR TT 70-58166

Hydrologic Investigations for Planning Dams in Northern Greece, by N. S. Kaessaris.
GERMAN, per, Die Wasser-Wirtschaft, Vol 58, No 3, 1968, pp 72-80.
*CFSTI TT 70-58161

Construction on Flood Plains, by Kh. Wetterkamp.
GERMAN, per, Die Wasser-Wirtschaft, Vol 58, No 3, 1968, pp 85-88.
*USDI/BR TT 70-58162

Considerations in the Choice of Functions of Distribution for Calculating Flood Flows, by D. Lautervach.
GERMAN, per, Wasser-Wirtschaft-Wassertechnik, Vol 18, No 1, 1968, pp 10-15.
*CFSTI TT 70-58168

Soil Mechanics Limits for Waterproofing Natural Materials in Hydraulic Construction, by W. Striegler.
GERMAN, per, Wasser-Wirtschaft-Wassertechnik, Vol 18, No 2, 1968, pp 52-55.
*USDI/BR TT 70-58167

Status, Development of Sewage Treatment Told, 12 pp.
GERMAN, per, Wasserwirtschaft-Wassertechnik, East Berlin, Mar 1970, pp 73-76.
JPRS 50611

A New Method for the Economical Utilization of Numerical Machine Tools, by L. Gyorgy.
HUNGARIAN, per, Budpest Gep., Vol 20, No 4, 1968, pp 152-154.
*ACSI J-8414
*FSTC-HT-23-754-70

Measurement and Automation (Selected Articles).
20 pp.
HUNGARIAN, per, Meres es Automatika, No 10, 1967, pp 411-421.
AIR/FTD/HT-23-587-69

The Damage from Noise in Weaving Sheds and the Measurement, by G. Bologni.
ITALIAN, per, Ann. Laringol, Vol 66, 1967, pp 338-347.
C.E. Trans 5312

An Investigation on Shrunk-on Gear Rims, by G. de Gregoria,
ITALIAN, per, Tecnica Ital., Vol 33, No 6, 1968.
NLL Ref: 9022.065 (3125)

Studies of Ice Accumulation on Ships. Part I, by Tadashi Tabata, 42 pp.
JAPANESE, per, Teion Kagaku, Series A, No 21, 1963, pp 173-221
DRB- T 93 J P942051468

Some Remarks on the Influence of Radial Clearance on the Operation of Self-Lubricating Bearings, by B. Korytkowski. 16 pp.
POLISH, per, Archiwum Budowy Maszyn, No 1, 1969, pp 137-148.
AIR/FTD/HT-23-627-69

Hydraulic Transport of Coal from X Mine to K Electric Power Plant, by R. Zahaczewski, M. Miller.
POLISH, per, Biul Glown Inst Gornictwa, No 10, 1963, pp 18-21.
ATS PJ-5408

Freezer Trawler Type B-29 M.T. Laskara, by M. Czajkowski, 5pp.
POLISH, per, Budownictwo Okretowe, vol 15 No 1, 1970, pp. 18-22.
*CFSTI TT 70-55110

Initial Exploitation Evaluation of the Freezer Trawler Type "Laskara", by W. Labecki.
POLISH, per, Technika i Gospodarka Morska, Vol 19, No 8-9, 1969, pp 375-378.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 136

New Baltic Cutter for Polish Fisheries, by B. Pradzynski.
POLISH, per, Technika i Gospodarka Morska, Vol 19, No 8-9, 1969, pp 378-381.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 145

Production of Large Trucks, Buses Supported, by Jerzy Dzieciolowski, 8 pp.
POLISH, np, Zycie Gospodarcze, Warsaw, 12 Apr 1970, pp 1, 2.
JPRS 50534

Progress of Chemical Industry Recorded, 5 pp.
RUMANIAN, per, Revista de Chimie, Bucharest, No 1, Jan 1970, pp 1, 2.
JPRS 50582

Machinebuilding Tasks in Land Improvement Scheme, by Iosif Opris, 5 pp.
ROMANIAN, np, Scintila, Bucharest, 29 Apr 1970, pp 1, 3.
JPRS 50682

Highway System Modernized in 1969, by A. Pejakov, 5 pp.
CROATIAN, per, Transport, Belgrade, Feb 1970, pp 35-36.
JPRS 50682

Modification of the Puls Method for the Study of the Passage of Floods Through Dams, by Macario Vega Perez.
SPANISH, per, Ingenieria Hidrauloca en Mexico, Vol 22, No 1, 1968, pp 114-117.
*CFSTI TT 70-58143

Continuous Compacted Clay Cutoff to Prevent Seepage, by F. M. Vilar.
SPANISH, per, Revista de Obras Publicas, Vol 115, No 3035, Mar 1968, pp 179-204.
*CFSTI TT 70-58145

Scientific
Mechanical, Industrial, Civil &
Marine Engineering (Contd)

Methods for Calculating Charcoal Kiln Capacity,
by Chamni.
THAI, per, The Vansarn, Vol 27, No 3, Jul-Sept,
1969, pp 219-223.
ACSI J-8242
ID 2204006670

Efficient, Streamlined Method Used in Hanoi
Housing Construction, by Hoang Minh, 6 pp.
VIETNAMESE, np, Nhan Dan, Hanoi, 2 Apr 1970, p 2.
JPRS 50531

Methods & Equipment

High-Speed Direct-Reading Infralow Frequency
Digital Frequency Meter, by V. B. Dudykevich,
N. V. Kiriyanski, 5 pp.
RUSSIAN, per, Kontrol'no-Izmeritel'naya Tekhnika,
No 5, pp 28-31.
NAV/NIC/Tran 2987-70

Effect of Difference in Trawl Cable Lengths on
Catch, by Ye. A. Lebedev, 5 pp.
RUSSIAN, per, Rybnoe Khoz., Vol 45, No 9, 1969,
pp 40-42.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 127
On Loan

Fish-Catching Techniques and Working Equipment
for Fishing Vessels, by K. S. Zaychik.
RUSSIAN, per, Sudostroyeniye, Vol 59, No 12,
1969, pp 22-25.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 154

Present State and Future Development of Fish-
finding Equipment, by O. A. Ivanov.
RUSSIAN, per, Sudostroyeniye, Vol 59, No 12,
1969, pp 54-58.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 134

Motion Picture and Television Engineering (Selected
Articles). 56 pp.
RUSSIAN, per, Tekhnika Kino i Televideniya, No 9,
1965, pp 21-28, 42-59.
AIR/FTD/MT-24-14-70

Scientific
Methods & Equipment (Contd)

Resolving Power Variable Focal Length Objectives
for 8-mm Movie Cameras, by V. N. Mel'nikov,
V. M. Gradoboyev.
RUSSIAN, per, Tekh Kino i Televideniya, No 4,
1967, pp 50-56.
AIR/FTD/MT-24-365-69

Methods of Measuring Electrical Conductivity of the
Water Masses of the Volga Reservoirs, by
M. G. Yershova, K. K. Yedel'shtein.
RUSSIAN, per, Trudy Ak Nauk SSSR, Instituta Biologii
Vnutrennikh Vod, Vol 12, No 15, 1966, pp 304-310.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 101
On Loan

Certain Problems of the State and Development of
High-Speed Stereoscopic Filming, by A. S. Dubovik,
V. V. Garnov. 11 pp.
RUSSIAN, per, Zhurnal Nauchnoy i Prikladnoy Foto-
grafii i Kinematografii, Vol 11, No 1, 1966,
pp 33-38.
AIR/FTD/MT-23-460-69

High-Speed Scanning Camera with Two Revolving
RKD-2 Disks, by A. S. Dubovik, V. V. Garnov.
12 pp.
RUSSIAN, per, Zh Nauchnoy i Prikl Fotogr i Kine-
matografii, Vol 11, No 2, 1966, pp 111-117.
AIR/FTD/MT-24-462-69

Investigation of Separating Ability of Aerial
Films on Colored and Spectromonal Materials,
by V. M. Bakhvalov.
RUSSIAN, per, Zh Nauchnoy i Prikl Fotogr i Kine-
matografii, Vol 14, No 3, 1969, pp 168-173.
AIR/FTD/MT-24-429-69

High-Resolving Photographic Materials, by
I. R. Protas.
RUSSIAN, per, Zh Nauch i Prikl Fotogr i Kine-
matografii, Vol 14, No 3, 1969, pp 209-211.
AIR/FTD/MT-24-429-69

Measurement of Frequency-Contrast Characteristics
of Photographic Materials,
RUSSIAN, per, Zh Nauchnoy i Prikl Fotogr i Kine-
matografii, Vol 14, No 3, 1969, pp 214-228.
AIR/FTD/MT-24-429-69

Radioisotope Diagnostic Methods, by J. Brousil,
Z. Dienstbier, 187 pp.
CZECH, bk, Radioisotopove Diagnostické Metody,
1965.
ACSI J-2354
ID 2204018467

Scientific
Methods & Equipment (Contd)

Methods of Measuring the Speed of Rotation, by
M. Yedrunes. 41 pp.
FRENCH, mono, Methodes de Mesure de Vitesses de
Rotation, 1969, pp 1-29.
NASA TT F-12,892

Comparative Continuous Testing During Operation
Dust Density Measuring Instruments in the Gas
Passes of Brown-Coal-Fired Boilers, by H. Vetter.
GERMAN, per, Mitt VGB, Vol 49, Feb 1969, pp 23-27.
C.E. Trans 5336

Research on Fish Behavior-foundation for the
Improvement and New Development of Fishing
Gear and Methods, by G. Martung.
GERMAN, per, Fischerei Forschung, Vol 6, No 1,
1968, pp 7-19.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 131

Development of Instruments in the Institute for
Deep-Sea Fishing, by W. Roepert.
GERMAN, per, Fischerei Forschung, Vol 6, No 1,
1968, pp 21-33.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 146

Experiments with Purse Seines in the East German
Marine Fishing, by G. Hecking.
GERMAN, per, Fischerei Forschung, Vol 6, No 1,
1968, pp 95-111.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 132

Operational Experience with Recording Dust Measuring
Instruments, by D. W. Laufhutte.
GERMAN, per, Mitt VGB, Vol 49, Feb 1969, pp 15-23.
C.E. Trans 5337

Sequence Control Circuit for the Development of
Photographic Plates for Scientific Purposes,
by F. Cianflone.
ITALIAN, per, Tecniche dell'Automazione, Vol 3,
No 6, 1969, pp 37-42.
C.E. Trans 5342D

Navigation, Communications, Detection
& Countermeasures

Trends in the Evolution of Radio Communications
with Moving Facilities in Railroad Transport,
by A. A. Tantsura, S. S. Neyman, 16 pp.
RUSSIAN, per, Avtomatika, Telemekhanika i Svyaz',
No 5, 1968, pp 1-6.
AIR/FTD/HT-23-220-70

The Influence of Dry Friction Forces in Gyroscope
Precession Axes on the Motion of the Sensing
Element of a Gyrocompass, by V. N. Koshlyakov,
A. P. Yanishevskiy. 9 pp.
RUSSIAN, per, Izv AN SSSR Mekh Tverdogo Tele, No 1,
1969, pp 35-39.
AIR/FTD/HT-23-173-70

Marine Law, by A. A. Volkov.
RUSSIAN, bk, Morskoye Pravo, 1969, 287 pp.
*CFSTI TT 70-54019

Marine Multipass Photometer-Transparency Meter,
by G. G. Neuymin, Ye. A. Agafonov, 14 pp.
RUSSIAN, per, Optikomekh Promy., No 6, 1968,
pp 31-36.
Dept of Navy NavShips Tr No 1222

Transfer of Microwave Radiation in the
Atmosphere, by K.S. Shifrin, 160pp.
RUSSIAN, bk, Perenos Mikrovolnovogo
Izlucheniya v Atmosfere, 1968.
CFSTI TT 69-55104

Navigation for Fishermen, by V. Olkhovsky,
A. Tantsura, et al. 386 pp.
RUSSIAN, mono, Promyslovaya Navigatsiya, 1969.
Dept of Interior
BCF/OFF
A-37-March 1970-No 31
On Loan

Radio Direction Finding (Selected Portions from
Chapter 2), by V. A. Vartanesyann, Ye. Sh. Goykhman,
33 pp.
RUSSIAN, bk, Radiopelengatsiya, 1966, pp 127-150.
AIR/FTD/MT-24-384-69

Technology and Operations of Long Distance
Communications Facilities, by I. P. Petrushin,
185 pp.
RUSSIAN, bk, Tekhnika i Eksploatatsiya Sredstv
Dal'ney Svyazi, Moscow, 1969, 177 pp.
JPRS 50619

Scientific
Navigation, Communications, Detection
& Countermeasures (Contd)

Digital Processing of Radar Information (Selected Chapters). 248 pp.
RUSSIAN, bk, Tsifrovaya Obravotka Radiolokatsionnoy Informatsiy, 1967, pp 152-400.
AIR/FTD/MT-24-441-69

Loss-Factor Meters Type 1033 and 1034 and Their Applicability, by K. Eckert. 11 pp.
GERMAN, per, Nachrichtentechnik, No 2, 1966, pp 75-77.
AIR/FTD/HT-23-180-70

How to Unify the Telecommunications System, by N. Popara, 5 pp.
SERBO-CROATIAN, np, Privredni Pregled, Belgrade, 9 Apr 1970, p 4.
JPRS 50534

Nuclear Science & Technology

Determination of Ultramicroquantities of R²²⁶ in Different Substances, by A. A. Pomanskiy, 5 pp.
RUSSIAN, per, Atom Energ, Vol 27, No 1, 1968, pp 36-39.
AEC/BNL-Tr-327-70

Multiparticle States, by L. K. Peker, 41 pp.
RUSSIAN, rpt, Fiziko-Tekh Institut, 1969, pp 5-17.
AEC/UCRL-Tr-1399-70

Automation of the Measurement of Reactivity, by A. A. Voronin, V. V. Ostapenko, 18 pp.
RUSSIAN, rpt, Inst Atomnoi Energii, IAE-1689, 1968.
AEC/ANL-Tr-820-70

Longitudinal Instabilities in Circular Charged Beams, Part I. Effect of Negative Mass, by A. G. Bonch-Osmolovskii
RUSSIAN, rpt, JINR-P9-4424, 1969.
AEC/UCRL-Tr-1402-69

Tissue Dosimetry of Radiation Generated by High Energy Accelerators, by V. T. Golovachik, 10 pp.
RUSSIAN, rpt, JINR-P16-4765.
AEC/ORNL-Tr-2286-70

Scientific
Nuclear Sciences & Technology (Contd)

Fine Structure of the Energy Dependence of $\bar{\nu}$ for U²³³ and U²³⁵ in Fission Induced by Neutrons of Less Than 1 MeV Energy, by V. F. Kuznetsov, 13 pp.
RUSSIAN, paper, CN-23/97 pp 75-83, Vol II "Nuclear Data for Reactors" Conference proceedings, Paris, Oct 17-21, 1966
AEC/ANL-Tr-808-70

Superconductivity in the Quark Model and Regge Trajectories, by Yu. M. Malyuta. 5 pp.
RUSSIAN, rpt, Ob'yedinennyy Inst Yadernykh Issled, 1968, pp 1-8.
AIR/FTD/HT-23-463-69

Purification of VK-50 Reactor Water in Four-Effect Distilling Plant, by Ye. K. Golubev, Yu. F. Baronkin, 9 pp.
RUSSIAN, per, Teploenergetika, No 9, 1969, pp 24-27.
NAV/NIC/Tran-3047-70

Accomplishments of Physics Institute with Atomic Center Traced, by Georgi Nadzhakov, Razum Andreychin, 15 pp.
BULGARIAN, per, Fiziko Matematicheskoto Spisanie, Sofia, Vol 12, No 4, Oct-Dec 1969, pp 255-264.
JPRS 50643

Analytical Method for Forecasting Radiational Situation in Nuclear Explosions, by Iv. Mikolov, Z. Paskalev, 12 pp.
BULGARIAN, per, Rentgenologiya i radiologiya, Sofia, No 1, 1970, pp 19-27.
JPRS 50639

Burst Can Detection in a Heavy Water Moderated Reactor, by J. Grisolle, G. Thegner.
FRENCH, per, Energie Nucleaire, Vol 10, Dec 1968, pp 502-505.
C.E. Trans 5240

EDF and the Choice Between Reactor Types, by M. M. Boiteux.
FRENCH, per, Energie Nucleaire, Vol 11, Nov 1969, pp 519-521.
C.E. Trans 5235

The Possibilities of Automation in the Control of Nuclear Power Stations, by P. Constantin.
FRENCH, rpt, International Nuclear Industries Fair (Nuclex 69, Basle (6-11 Oct 1969) Technical Meeting No 6/3, 14 pp.
C.E. Trans 5287

The Possibilities of Automation in the Control of Nuclear Power Stations, by L. M. Panis.
FRENCH, rpt, International Nuclear Industries Fair (Nuclex 69), Basle, (6-11 Oct 1969) Technical Meeting No 6/5, 16 pp.
C. E. Trans 5288

Power Frequency Regulation of a Boiling Water Reactor with two Turbines, by P. Bremer.
FRENCH, rpt, International Nuclear Industries Fair (Nuclex 69), Basle, (6-12 Oct 1969) Technical Meeting No 6/9, 11 pp.
C.E. Trans 5286

The use of the Cyclotron for the Production of Radionuclides, by W. Weelmann-Eggebert, 16 pp.
GERMAN, per, Atomwirth. Atomtech, No 6, 1961, pp 273-277.
AEC/ORNL-Tr-2223-70

Biblis 1200 MW Nuclear Power Station, by H. Frower, et al.
GERMAN, per, Atomwirtschaft, Vol 14, Sept-Oct 1969, pp 455-464.
E.E. Trans 1916

Radionuclide Batteries, by K. J. Euler, 38 pp.
GERMAN, per, Elek Maschinenbau, Vol 86, No 11, 1969, pp 463-472.
AEC/UCRL-Tr-10463-70

Neutron Personnel Dosimetry by Recording the Fission Fragments in Mica Foils, by W. Stolz. et al.
GERMAN, per, Kernenergie, Vol 12, July 1969, pp 244-250.
C.E. Trans 5309

A Rapid Pulse-Height Discriminator with Compensation of the Time of Rise and the Threshold Effect, by H. Jung, M. Brullmann, 31 pp.
GERMAN, per, Nucl Instr Methods, Vol 55, 1967, pp 301-322.
AEC/ORNL-Tr-1871-70

Corrosion of Reactor Materials Under Irradiation, by S. Murura.
JAPANESE, per, Nippon Genshiryoku Gakkaishi, Vol 11, No 6, 1969, pp 353-361.
*NASA TT F-13,093

The Development of Nuclear Energy and Its Impact on the Iron and Steel Industries, by Y. Yoshitani.
JAPANESE, per, Techn Rep Fuji Steel, Vol 17, 1968, pp 304-315.
BISI 8145

Production, Application of Radioactive Isotopes Discussed, by C. Chiotan, 15 pp.
ROMANIAN, per, Progresele Stiintei, Bucharest, No 3, 1970, pp 97-104.
JPRS 50589

The Production of Radioisotopes in a Synchrocyclotron, by M. C. Palcos, R. Radicella, 14 pp.
SPANISH, rpt, Natl Atom Energy Comm, Argentina, No 68, 1962.
AEC/ORNL-Tr-2006-68

Physics

Formation of Showers in Rescatterings and the Growth of the Total Cross-Sections as $E \rightarrow \infty$ by A. I. Lendel, K. A. Ter-Martirosyan, 9 pp.
RUSSIAN, rpt, An UkrSSR, Inst Teoreticheskoy Fiziki, Preprint 69-89, Kiev, 1969.
AEC/SLAC-Tr-112-70

Volume Diffusion and the Phase Diagram in Ni-Mn Alloy System, by S. D. Gertstriken.
RUSSIAN, per, Akad Nauk URSR. Kiev, Inst Metallifiz Sb Nauch Rabot Voprosy, No 15, 1962, pp 152-155.
*CFSTI TT 70-58199

Derivation of an Equation for the Dynamics of the Vapor Content in Steam-Generating Channels When Underheated Water is Boiled, by V. I. Plyutinskiy, L. L. Fishgoyt, 10 pp.
RUSSIAN, per, Atomnaya Energiya, Vol 25, No 6, Dec 1968, pp 474-479.
Dept of Navy NIC Trans 3046

Mechanisms for the Diffusion of Cu in Fe and Steel, by I. I. Szhevaga.
RUSSIAN, per, Avtom Svarka Sborn, No 6, 1957, pp 87-90.
*CFSTI TT 70-59116

Appraising the Reliability of a Finite Automation Considering Alternating Failures, by G. A. Volovnik. 9 pp.
RUSSIAN, per, Avtomatika i Vychislitel'naya Tekhnika, No 1, 1968, pp 44-49.
AIR/FTD/MT-24-451-69

Scientific
Physics (Contd)

Biomechanical Mechanisms of Active Ion Transport, by B. A. Tashmukhamedov.
RUSSIAN, per, Biofizika, Vol 14, No 5, 1969, pp 948-950.
Dept of Navy APL/JHU T-2419

Solution of a General Problem in the Theory of Elasticity for Certain Boundary Conditions, by I. A. V. Gorely,
RUSSIAN, per, Dinamika i Prochnost Mashin, No 3, 1966, pp 56-58.
NLL Ref: 9022.09 (5027)

Some Theoretical Considerations Regarding the Calculation of the Volume Diffusion Coefficient, by B. Ya. Lyubov.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 84, 1952, pp 939-941.
*CFSTI TT 70-59092

Calculation of the Turbulence Constant Near Walls, by M. A. Gol'dshtik, S. S. Kutaleladze.
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 185, No 3, 1969, pp 535-537.
ATS RJ-5401

Effect of Prolonged Heating on the Properties of Conductor Coppers, by M. L. Pravovarov.
RUSSIAN, per, Elektrotehnika, Vol 39, May 1968, pp 59-61.
C.E. Trans 5110

Energy Characteristics of Ruby Laser Radiation, by N. V. Grevtsev, V. G. Karabutov, et al. 14 pp.
RUSSIAN, per, Fizika i Khimiya Obrabotki Materialov, No 6, 1968, pp 13-20.
AIR/FTD/MT-24-37-70

Fast Fission Ionization Chamber, by V. N. Kononov, A. A. Metlev, 10 pp.
RUSSIAN, rpt, Fiziko-Energet Inst, Obninsk, FEI-143, 1968.
AEC/ANL-Tr-819-70

The Influence of High Temperature Thermomechanical Treatment on the Mechanical Properties of Steel 45KhNMFA During Torsion, by N. L. Kuklyak.
RUSSIAN, per, Fiz Khim Mekh Mat, Vol 4, No 2, 1968, pp 128-132.
*BISI 8321

Investigation into the Stresses in Contact Friction in Relation to the Direction of Sliding, by V. D. Yevdokimov.
RUSSIAN, per, Fiz Khim Mekh Mat, Vol 4, No 5, 1968, pp 606-608.
HB 8084

Scientific
Physics (Contd)

Susceptibility of Austenitic Chrom-Nickel Steels to Intercrystalline Corrosion as Related to Corrosion Cracking, by V. I. Gerasimov, et al.
RUSSIAN, per, Fiz Khim Mekh Mat, Vol 5, No 2, 1969, pp 165-169.
HB 7967

Photoelectric Exposure Meters Methods of Testing, 12 pp.
RUSSIAN, rpt, Gosudarstvenny Standart. Soyuz SSR, GOST 13831-68, 1968, pp 1-9.
AIR/FTD/MT-24-01-70

Pulsed Light Sources, by I. S. Marchak, 273 pp.
RUSSIAN, bk, Impul'snyye Istochniki Sveta, Moscow-Leningrad, 1963.
Dept of Navy NRL-Tran 1210

Diffusion of Iron and Magnetite, by V. I. Izvekov.
RUSSIAN, per, Inzhenerno Fiz Zh, Vol 1, 1958, pp 64-68.
*CFSTI TT 59100

Decreasing the Hydrodynamic Resistance of Pipelines, by I. T. Yel'perin.
RUSSIAN, per, Inzh-Fiz Zh, Vol 10, No 2, 1966, pp 235-239.
ATS RJ-5410

Solution of Heat Transfer Problems by the Grid Method, by G. F. Muchnik.
RUSSIAN, per, Inzh-Fiz Zh ANBelSSR, Vol 4, No 3, 1961, pp 72-82.
ATS RJ-5412

Nonlinear Steady-State System of Differential Equations for Heat and Mass Transfer, by M. S. Smirov.
RUSSIAN, per, Inzh-Fiz Zh Ak Nauk Belor SSR, Vol 9, No 2, 1965, pp 250-254.
ATS RJ-5411

Growth of Pores During Plastic Deformation, by A. Ya. Shinyayev.
RUSSIAN, per, Issled Zharopr Splav ANSSSR Inst Mat Baikova, Vol 10, 1963, pp 42-44.
*CFSTI TT 70-59063

Draft: USSR State Standard Units of Physical Variables, 43 pp.
RUSSIAN, per, Izmeritel'naya Tekhnika, Moscow, No 2, 1970, pp 4-27.
JPRS 50620

Scientific
Physics (Contd)

Thermoluminescence Characteristics of Various Lithium Fluoride Crystals Irradiated in a Reactor, by A. F. Lyushina, 5 pp.
RUSSIAN, per, Izv Akad Nauk Latv SSR, Ser Fiz-Tekhn. Zinat, No 5, 1968, pp 36-39.
AEC/ANL-Tr-813-70

The Wall Effect, by Yu. N. Pavlovskiy.
RUSSIAN, per, Izv Ak Nauk SSSR Mekh Zhidk i Gaza, No 2, 1967, pp 160-165.
ATS RJ-5406

Representation of Solutions of Some Problems in the Theory of Flow and Heat Conduction in the Form of a Sum of Specific Self-similar Solutions of the Heat Conduction Equation, by T. F. Ivanov.
RUSSIAN, per, Izv AN SSSR, Mekh Zhidk i Gaza, No 5, 1968, pp 179-185.
ATS RJ-5415

An Experimental Investigation of Detached Flows Behind a Flat Ledge Where $M_{Sub 1} = 1.97$, by R. K. Tagirov. 9 pp.
RUSSIAN, per, Izvestiya AN SSSR, Mekh Zhidkosti i Gaza, No 4, Jul-Aug 1969, pp 153-157.
NASA TT F-12,900

Flow of a Supersonic Stream Over an Inclined Protuberance, by D. M. Voitenko.
RUSSIAN, per, Izv AN SSSR, Mekhan Zhid i Gaza, No 6, 1969, pp 149-154.
*Dept of Navy APL/JHU J-1499

Dielectric and Optical Investigations of Single Crystals of $BaTiO_3$ in the Infralow Frequency Band, by V. Z. Borodin, V. G. Kuznetsov, 6 pp.
RUSSIAN, per, Izvestiya AN SSSR, Seriya Fiz., Vol 29, No 11, 1965, pp 1982-1985.
NAV/NIC/Tran 2990-70

Dust-Induced Turbulence of the Working Flow in a Hypersonic Nozzle, by B. I. Bakum. 7 pp.
RUSSIAN, per, Izv Sibirsk Otd Akad Nauk SSSR Ser Tekhn Nauk, Vol 8, No 2, 1969, pp 32-35.
NASA TT F-12,743

Thermodynamics of Fe-Cr Alloys, by B. P. Burylev.
RUSSIAN, per, Izv VUZ Chern Met, No 6, 1962, pp 5010.
*CFSTI TT 70-58196

Scientific
Physics (Contd)

An Investigation of the Relation Between Oxidizability and Electrochemical Behavior of the Carbon Anode in the Electrolysis of Aluminum, by G. F. Vedernikov, M. M. Vetyukov.
RUSSIAN, per, Izv VUZ Tsvet Met, Vol 9, No 6, 1966, pp 63-67.
ATS RJ-5424

Relation Between the Anode Current Density Distribution and the Shape of the Interpolar Gap in Industrial Aluminum Cells, by A. M. Voskanyan.
RUSSIAN, per, Izv VUZ Tsvet Met, Vol 9, No 6, 1966, pp 68-74.
ATS RJ-5425

Longitudinal Instabilities in Circular Charged Beams. Part II. Radiative Instability, by A. S. Bonch-Osmolovskii, 14 pp.
RUSSIAN, per, JINR-P9-4425, 1969.
AEC/UCRL-Tr-1403-69

Born Effective Cross Sections of Electron Excitation of Atoms, by L. A. Vainshtein, I. I. Sobel'man, 28 pp.
RUSSIAN, per, J Quant Spectrosc Radiat Transfer, No 8, 1968, pp 1491-1526.
AEC/ANL-Tr-816-70

Modeling of Processes for the Liquid-Phase Oxidation of Hydrocarbons, by D. S. Azbel, RUSSIAN, per, Khim Prom, No 9, 1964, pp 689-693.
ATS RJ-5420

The Effect of Heat and Mass Transfer Processes on the Reaction Rate in Ethylene Oxidation, by M. G. Slin'ko.
RUSSIAN, per, Khim Prom, No 3, 1968, pp 138-146.
ATS RJ-5417

Stages-Countercurrent Multisectional Contactors for Continuous Adsorptive Treatment of Petroleum Products, by S. Z. Levinson, D. I. Orochko.
RUSSIAN, per, Khim i Tekhnol Toplivo i Masel, Vol 12, No 1, 1967, pp 35-39.
ATS RJ-5418

X-Ray Diffraction and Metallographic Study of Phase Transformations in Superconducting Nb/Zr Alloys, by N. F. Pravdyuk.
RUSSIAN, per, Metallovedeniya Fizika-Khimiya i Metallofizika Sverkhprovodnikov, 1967, pp 15-26.
C.E. Trans 5328

Scientific
Physics (Contd)

X-Ray Study of the Microstructure of Superconducting Zirconium 25% Niobium Alloy, by N. A. Sokolov. RUSSIAN, per, Metallovedeniye Fizika-Khimiya i Metallofizika Sverkhprovodnikov, 1967, pp 36-41. C.E. Trans 5329

Cementation of Fe and Fe-alloys by C Diffusion, by M. A. Krishtal. RUSSIAN, per, Metalloved i Term Obrab Metall, No 8, 1957, pp 20-21. *CFSTI TT 70-59104

The Physical Nature of Luminescence Pulsations in Fluxes Heated by Arc Discharges, by G. P. Petrova. 7 pp. RUSSIAN, per, Moscow. Energeticheskii Inst. Fiz Gazodinamika Ionizirovannykh i Khim Reagiryushchikh Gazov, 1968, pp 44-47. AIR/FTD/HT-23-177-70

The Interaction Between Local Currents, Induced in a Partially Ionized Gas Flow, and a Magnetic Field, by G. P. Petrova. 6 pp. RUSSIAN, rpt, Moscow. Energeticheskii Institut Fizicheskaya Gazodinamika Ionizirovannykh i Khimicheskii Reagiryushchikh Gazov, 1968, pp 48-51. AIR/FTD/HT-23-148-70

Investigation of Carbide Region of Ta-Hf-C System, by V. S. Yemel'yanov, A. I. Yevstyukhin, et al. 7 pp. RUSSIAN, per, Moscow. Inzhenerno-Fiz Inst. Metal i Metalloved Chistykh Metallov, No 6, 1967, pp 108-114. AIR/FTD/MT-24-362-69

Grain Boundary Precipitation and the Self-diffusion Coefficient, by S. Z. Bokshteyn. RUSSIAN, per, Nauchnye Kokl Vysshe Shkoly Metal, No 4, 1958, pp 158-161. *CFSTI TT 70-58185

Gas-Chromatographic Study of Copolymerization of Vinyl Monomers, by L. P. Vishnevetskaya. RUSSIAN, PER, Plast Massy, No 6, 1969, pp 62-63. ATS RJ-5352

A Step Toward the Understanding of Antimatter, by A. Logunov. 5 pp. RUSSIAN, np, Pravda, 14 Feb 1970, p 3. AIR/FTD/HT-23-217-70

Scientific
Physics (Contd)

The Rotation of a Rigid Cylinder in a Visco-Plastic Medium, by F. A. Bakhshyan. 12 pp. RUSSIAN, per, Prikl Mat i Mekh, Vol 12, No 6, 1968, pp 749-756. NASA TT F-12,599

Investigation of Deformations by the Thermoelectric Method, by V. Ya. Bash, I. I. Ishchenko. 14 pp. RUSSIAN, per, Prikl Mekh, Vol 5, 1969, pp 117-124. AIR/FTD/MT-24-15-70

Modern Problems in Semiconductors, by B. M. Vul. 20 pp. RUSSIAN, per, Priroda, No 2, 1969, pp 47-55. AIR/FTD/MT-24-461-69

Plasma and Laser Radiation (Effects of Nonlinear Absorption), by N. A. Generalov, G. I. Kozlov, et al. 13 pp. RUSSIAN, per, Priroda, No 5, 1969, pp 76-81. AIR/FTD/MT-24-36-70

The Role of the Structure of Surface Layers in the Process of External Friction of Polymer Materials, by V. A. Beliy. 34 pp. RUSSIAN, rpt, Proceedings of the All-Union Sym on the Nature of Friction in Solids, Minsk, 1969, pp 35-68. NASA TT F-12,890

The Movement of Charges in Solid Helium-3 and-4, by Ye. Ifft, L. Mezhev-Deglin, 6 pp. RUSSIAN, rpt, Proceedings of the 10th Inter Conf on Low Temperature Phy, Aug 31-Sept 6, 1966, pp 224-232. AEC/ANL-Tr-827-70

Nonlinear Effects in the Migration of Conducting and Nonconducting Elementary Excitations in A_1B_7 and A_2B_6 Crystals, by B. N. Gorbachev. RUSSIAN, bk, Radiatsionnaya Fizika, IV. Ionnyye Kristally, Vol 4, 1966, pp 85-97. *Dept of Navy NRL

Thermophysical Properties of Liquid Air and Its Components, by A.A. Vasserman, V.A. Rabinovich, 235 pp. RUSSIAN, bk, Teplofizicheskie Svoistva Zhidkogo Vozdukha i Ego Komponentov, No. 3, 1968. CFSTI TT 69-55092

Scientific
Physics (Contd)

Thermoelastic Stresses in a System of Three-layer Cylinders, by P. S. Solomin. 11 pp.
RUSSIAN, per, Tomskiy Gosudarstvennyy Univ Uchenyye Zapiski, No 68, 1967, pp 117-125.
AIR/FTD/HT-23-640-69

On the Volume and Grain Boundary Diffusion of Ni in Ni-Fe Alloys, by L. I. Ivanov.
RUSSIAN, per, Trudy Ak Nauk SSSR, Inst Met, No 1, 1957, pp 104-107.
*CFSTI TT 70-58197

On the Formal Diffusion of Ag in Several Polycrystalline Metals, by V. I. Arkharov.
RUSSIAN, per, Trudy Akad Nauk SSSR, Ural Filial Inst Fiz Metal, No 11, 1950, pp 81-89.
*CFSTI TT 70-58186

In the Diffusion of Ti Ions in K1 Single Crystals, by O. G. Mankin.
RUSSIAN, per, Trudy Inst Fiz Astro Akad Nauk, No 31, 1966, pp 183-189.
*CFSTI TT 70-59117

Certain Regularities of the Catalytic Hydrogenation of Nitrobenzene Derivatives on Raney Nickel, by A. V. Finkel'shteyn, Z. M. Kuz'mina. 7 pp.
RUSSIAN, per, Trudy Sibirskiy Tekhnologicheskii Inst, No 38, 1966, pp 62-67.
AIR/FTD/HT-23-609-69

Effect of Nuclear Radiation on Cadmium Telluride Photocells, by B. M. Trakhbrot, I. A. Megrelishvili. 6 pp.
RUSSIAN, rpt, Trudy Soveshchaniya Radiatsionnaya Fizika Nemetallicheskikh Kristallov, 1967, pp 411-415.
AIR/FTD/HT-23-106-70

Two-Dimensional Viscous Incompressible Fluid Flow Near the Sharp Leading Edge of a Plate at Zero Angle of Attack, Part 2, by T. S. Varzhanskaya, L. A. Chudov.
RUSSIAN, per, Vychisl Metody i Program: Chislen Metody v Gaz Dinamike, No 11, 1968, pp 19-26.
ATS RJ-5403

Numerical Solution of the Problem of Supersonic Viscous Gas Flow Past Blunt Bodies, by B. M. Pavlov.
RUSSIAN, per, Vychisl Metody i Program: Chislen Metody v Gaz Dinamike, No 11, 1968, pp 32-43.
ATS RJ-5404

Scientific
Physics (Contd)

Nonviscous Gas Flows. Survey of Studies Performed at the Moscow University on the Numerical Investigation of External and Internal Aerodynamic Problems, by G. S. Roslyakov, G. F. Telenin.
RUSSIAN, per, Vychisl Metody i Program: Chislen Metody v Gaz Dinamike, No 11, 1968, pp 93-112.
ATS RJ-5405

Investigation of the Kinetics of the $C\equiv N$ Bond Transformation in Polyacrylonitrile by IR Absorption Spectra, by N. A. Kubasova, M. M. Kusakov. 5 pp.
RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya. Seriya B. Kratkiye Soobshcheniya, Vol 11, No 3, 1969, pp 193-196.
AIR/FTD/HT-23-155-70

15th Anniversary of the World's First Atomic Power Station, by V. G. Konochkin, L. A. Kochetkov. 7 pp.
RUSSIAN, per, Zhurnal Atomnaya, Vol 26, No 6, 1969, pp 487-490.
NAV/NIC/Tran-3039-70

Theory of Wave Fluctuations and Scattering in a Plasma in Strong Electric and Magnetic Fields, by I. A. Akhiezer, V. V. Angelesko.
RUSSIAN, per, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 55, No 6(12), 1968, pp 2291-2297.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 82
On Loan

Heat Transfer and Second Sound in Dielectrics with Large Drift Velocities of a Phonon Gas, by H. Nielson, B. I. Shklovskiy. 14 pp.
RUSSIAN, per, Zh Eksperimental'noy i Teoreticheskoy Fiziki, Vol 56, No 2, 1969, pp 709-717.
AIR/FTD/HT-23-617-69

Study of the Character of Turbulent Processes in a Shock-Wave Front in a Plasma, by A. G. Yes'kov, R. Kh. Kurtmullayev.
RUSSIAN, per, Zh Eksperimental'noy i Teoreticheskoy Fiziki, Vol 56, No 5, 1969, pp 1480-1491.
Dept of Navy APL/JHU T-2344

The Structure of an Oblique Shock Wave at High Mach Numbers, by Yu. A. Barazin. 9 pp.
RUSSIAN, per, Zh Mekh i Tekh Fiz, No 4, Jul-Aug 1969, pp 100-104.
NASA TT F-12,790

Scientific
Physics (Contd)

Interaction of Electrons of Average Energies with Thin Thermoplastic Layers, by N. G. Nakhodkin, V. P. Nemtsev. 9 pp.
RUSSIAN, per, Zhurnal Nauchnoy i Prikladnoy Fotografii i Kinematografii, Vol 13, No 2, 1968, pp 122-127.
AIR/FTD/MT-24-427-69

Numerical Calculation of the Motion and Laser Heating of a Plasma Formed by a Burst of Absorption on a Vapor of a Solid, by G. G. Vilenskoiya.
RUSSIAN, per, Zh Prikl Mekhan i Tekhn Fiz, No 6, 1960, pp 3-20.
*Dept of Navy APL/JHU J-1509

Semiconductor Pressure Sensor for Measuring Strong Shock Waves in a Liquid (10^3 atm), by V. K. Kedrinskiy, R. I. Solukhin. 6 pp.
RUSSIAN, per, Zh Prikl Mekh i Tekhn Fiz, No 4, 1969, pp 92-94.
AIR/FTD/HT-23-51-70

Study of the Diffusion Coefficient in Some Cu Alloys, by V. Bugakov.
RUSSIAN, per, Zh Tekhn Fiz, Vol 4, 1934, pp 1342-1346.
*CFSTI TT 70-59073

Sonic Flow of an Ideal Gas Past Half-Bodies, by Yu. B. Lifshits, O. S. Ryzhov. 14 pp.
RUSSIAN, per, Zh Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 9, No 2, 1969, pp 387-396.
AIR/FTD/HT-23-91-70

Transonic Flows Behind a Detached Shock Wave, by O. M. Belotserkovskiy.
RUSSIAN, per, Zh Vychislitel'noy Mat i Met Fiz, Vol 9, No 4, 1969, pp 908-931.
Dept of Navy APL/JHU T-2418

Investigation of Atomic Mobility at High-Temperature Axial Compression in Ferrite Type Alloys, by I. Ya. Kekhtyar.
UKRAINIAN, per, Ukr Fiz Zh, Vol 3, 1958, pp 516-520.
*CFSTI TT 70-59088

Effect of Volume Pressure on the Self-diffusion of Fe in Fe Alloys with Small Additions of Al, by S. D. Gertsriken.
UKRAINIAN, per, Ukr Fiz Zh, Vol 3, 1958, pp 651-658.
*CFSTI TT 70-59070

Scientific
Physics (Contd)

On the Movement of Atoms in Metals in the Region of the Temperature Recrystallization, by L. N. Larikov.
UKRAINIAN, per, Ukr Fiz Zh, Vol 3, 1958, pp 668-671.
*CFSTI TT 70-59077

On Thermal Vacancies in Metals and alloys, by S. D. Gertsriken,
UKRAINIAN, per, Ukr Fiz Zh, Vol 4, 1959, pp 137-149.
*CFSTI TT 70-59090

Electrodiffusion in Cd and Zn, by P. P. Kuz'menko.
UKRAINIAN, per, Ukr Fiz Zh, Vol 4, 1959, pp. 537-539.
*CFSTI TT 70-59068

On the Theory of Electrodiffusion in Metals and other Solids, by M. D. Glinchuk.
UKRAINIAN, per, Ukr Fiz Zh, Vol 4, 1959, pp 684-685.
*CFSTI TT 70-59072

Study of the Atom Position in Solid Alloys of Fe-Al by the Method of Electro-transport, by S. D. Gertsriken.
UKRAINIAN, per, Ukr Fiz Zh, Vol 5, 1960, pp 79-85.
*CFSTI TT 70-59075

Electrodiffusion in Sn, Pb, Ag, and Cu, by P. P. Kuz'menko.
UKRAINIAN, per, Ukr Fiz Zh, Vol 5, 1960, pp 428-429.
*CFSTI TT 70-59067

Diffusion and Electro-transport in AgZn Alloys, by P. P. Kuz'menko.
UKRAINIAN, per, Ukr Fiz Zh, Vol 5, 1960, pp 683-687.
*CFSTI TT 70-59066

Study of the Ionic Charge in Pure Solid Metals by an Electro-transport Method of Thermal Vacancies, by P. P. Kuz'menko.
UKRAINIAN, per, Ukr Fiz Zh, Vol 5, 1960, pp 720-722.
*CFSTI TT 70-59065

Concerning the Question for Determining the Migration of Ions in Solid Metals by the Method of Radioactive Isotope, by P.P. Kuz'menko.
UKRAINIAN, per, Ukr Fiz Zh, vol 6, 1961, pp. 712-714.
*CFSTI TT 70-59081

Scientific
Physics (Contd)

Scientific
Physics (Contd)

- Diffusion in a Non-uniformly Heated Strained Layer in the Presence of Mass Exchanges with the Surrounding Medium, by Y. S. Podstrigach.
UKRAINIAN, per, Ukr Fiz Zh, Vol 7, 1962, pp 652-660.
*CFSTI TT 70-59078
- Electrical Transfer of Sb in Al, by P. P. Kuz'menko.
UKRAINIAN, per, Ukr Fiz Zh, Vol 7, 1962, pp 1530-1534.
*CFSTI TT 70-59087
- Interrelationship Between Short-range and Long-range Order and the Properties of Alloys, by I. L. Aptekar.
UKRAINIAN, per, Ukr Fiz Zh, Vol 8, 1963, pp 170-173.
*CFSTI TT 70-59079
- On the Determination of the Temperature and Concentration dependence of the Short-range order Parameters for n-component Unordered Solid Solution, by Y. N. Kurushin.
UKRAINIAN, per, Ukr Fiz Zh, Vol 8, 1963, pp 175-179.
*CFSTI TT 70-59071
- Theory of Diffusion in Ordered Alloys of the Cu-Au Type, by Z. A. Matysina.
UKRAINIAN, per, Ukr Fiz Zh, Vol 8, 1963, pp 190-195.
*CFSTI TT 70-59086
- Changes in Elasticity, Magnetostriction and Electric Resistance of Fe-Al Alloys During Ordering, by V. L. Sandomirsky.
UKRAINIAN, per, Ukr Fiz Zh, Vol 8, 1963, pp 284-288.
*CFSTI TT 70-59089
- Investigation of the Magnetostriction of the Paraprocess in Ordered Iron Alloys, by I. Ya. Dekhtyar.
UKRAINIAN, per, Ukr Fiz Zh, Vol 8, 1963, pp 315-320.
*CFSTI TT 70-59069
- Theory of Ordering in Alloys with an fcc Lattice, by V. V. Geichenko.
UKRAINIAN, per, Ukr Fiz Zh, Vol 8, 1963, pp 1223-1233.
*CFSTI TT 70-59074
- On Long-range Order in the Nickel-chromium System, by A. V. Progrushchenko.
UKRAINIAN, per, Ukr Fiz Zh, Vol 9, 1964, pp 1351-1355.
*CFSTI TT 70-59083
- Diffusion in Alloys of Ni and Fe, by D.F. Kalinovich
UKRAINIAN, per, Ukr Fiz Zh, Vol 10, 1965, pp 917-19.
*CFSTI TT 70-59097
- Effect of Ultrasonic Vibrations on the Ordering of Solid Solutions, by F. K. Gorsky.
UKRAINIAN, per, Ukr Fiz Zh, Vol 10, 1965, pp 1141-1145.
*CFSTI TT 70-59082
- Some Luminosity Characteristics of a Decaying Discharge Plasma in Cesium Vapor, by D. Morgulis, V. I. Lukashenko. 5 pp.
UKRAINIAN, per, Ukrayins'kyi Fizychnyy Zhurnal, Vol 14, No 3, 1969, pp 507-509.
AIR/FTD/HT-23-50-70
- Diffusion of High-Density Radiation in a One-Dimensional Medium, by V. N. Silvers, S. N. Konvalov.
UKRAINIAN, per, Ukrainskiy Fizicheskiy Zhurnal, Vol 14, No 6, 1969, pp 990-995.
Dept of Navy APL/JHU T-2414
- Determination of Fission Products in Coolant Gas with Delayed Neutron Measurement, by J. Moravek.
CZECH, per, Bull. EGU, No 3-4, 1968, pp 51-56.
C.E. Trans 5296
- Using the Laser for Measuring the Position of Artificial Earth Satellites, by Pavel Navara. 11 pp.
CZECH, per, Ceskoslovensky Casopis pro Fysiku, Vol 19, No 2, 1969, pp 153-159.
AIR/FTD/HT-23-61-70
- Heat Transfer in a Rod-Type Heat-Producing Cell, by J. Simonel.
CZECH, per, Jaderna Energie, Vol 12, No 7, 1966, pp 246-249.
ATS CJ-5416
- New Phenomena in Recrystallization of Austenite, by J. Pluhar and P. Zuna,
CZECH, per, Kovove Mat., Vol 6, No 3, 1968, pp 209-221.
NLL Ref: 9022.06 (6781)
- On the Diffusion of Th in W, by P. Clausen.
DUTCH, per, Physica, Vol 7, 1927, pp 193-198.
*CFSTI TT 70-59041

Scientific
Physics (Contd)

The Boundary Conditions for Concentration Equals Zero in Diffusion Problems, by W. De. Groot.
DUTCH, per, Physica, Vol 8, 1928, pp 23-34.
*CFSTI TT 70-59040

Research on the Diffraction of Electrons. Electronic Analysis, by M. Ponte. 42 pp.
FRENCH, per, Ann Phys, Vol 13, Ser 10, 1930, pp 395-452.
NASA TT F-12,810

Study of the Diffusion and Precipitation of Rare Gases in Metals, by V. Levy.
FRENCH, per, Bull Soc Chim Fr, No 6, 1964, pp 1169.
*CFSTI TT 70-58218

On the Interdiffusion and Metallurgical Products, by J. Laissus.
FRENCH, per, Chimie et Industrie, Vol 29, 1933, pp 515-526.
*CFSTI TT 70-58214

Diffusion Studies by X-rays in Graphite with Micropores, by C. Schiller.
FRENCH, per, Comptes Rendus Acad Sci, Vol 264, Ser B, 1967, pp 309-312.
*CFSTI TT 70-58220

Determination of the Activation Volumes for the Diffusion of Atoms into Au, Cu and Al, by M. Beyeler.
FRENCH, per, Le J de Physique, Vol 29, 1968, pp 345-353.
*CFSTI TT 70-59230

Thermal Emptying of a Trap, by J. Philippe.
FRENCH, per, Journal de Physique, Vol 30, 1969, pp 252-260.
C.E. Trans 5251

Combined Stark and Zeeman Effects on the Hydrogenoid Transitions of Neutral Helium, by C. Deutsch, 33 pp.
FRENCH, per, J. Quant Spectrosc Radiat, Vol 8, No 4, 1968, pp 1027-1059.
AEC/ORNL-Tr-2295-70

A Modification of the Structure of Zr and Zr Alloys by the Passage of a Continuous Electric Current at High Temperatures, by G. Beranger.
FRENCH, per, Rev Hautes Temper et Refract, Vol 3, 1966, pp 235-242.
*CFSTI TT 70-58209

Scientific
Physics (Contd)

Structure and Electrical Conductivity of the $ZrO_2-Y_2O_3-Ta_2O_5$ System at High Temperature, by M. Caillat.
FRENCH, per, Rev Int Hautes Temper et Refract, Vol 5, 1968, pp 173-179.
*CFSTI TT 70-58229

On Ferromagnetically Labelled Sediments and Possibilities of Counting Them Automatically, by S. U. W. Hoeg, H. Griesseier, 24 pp.
GERMAN, per, Acta Hydrophysica, Vol 9, No 1, 1964, pp 35-53.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 62
On Loan

Extrapolation Counter for the Absolute Determination of Cl^{14} , by D. Modes.
GERMAN, per, Atomkernenergie, No 6, 1961, pp 363-365.
C.E. Trans 5316

Studies of the Mechanism of Neutron Capture in the Resonance Region, by Hans-Ilrich Gersch, 30 pp.
GERMAN, rpt, Deut Akad Wissen Zu Berlin. Zentral fur Kern, ZfK-136, 1968, pp 37-58.
AEC/ANL-Tr-811-70

Auxiliaries Supply Arrangements for Thermal Units Up to the Largest Sizes, by W. E. Wartenberg.
GERMAN, per, Energie und Technik, Vol 21, Mar 1969, pp 87-93.
C.E. Trans 5283

Thermodiffusion in Solids and Liquids, by H. Dickel, 19 pp.
GERMAN, per, Landolt-Bornstein (Springer-Verlag), vol 2, Part 5, chap 2542, 1968, pp. 219-237.
*NBS TT 70-57863

Reactions in Solids, by K. Hauffe 23 pp.
GERMAN, per, Landolt-Bornstein (Springer-Verlag), vol 2, Part 5, chap 2562, 1968, pp. 337-359.
*NBS TT 70-57864

Determination of the Absorption Coefficients of Soot Particles of Various Flames, by F. Rossler.
GERMAN, per, Optik, Vol 6, No 3, 1950, pp 145-151.
C.E. Trans 5249

Scientific
Physics (Contd)

Interior Band Transitions as Absorption Mechanisms of Free Charge Carriers in Semiconductors, Part II, by F. R. Kessler. 70 pp.

GERMAN per, Physica Status Solidi, Vol 6, No 3, 1964, pp 4-52.

AIR/FTD/HT-23-607-69

Random Load Fatigue, by G. Jacoby.

GERMAN, per, V.D.I. Zeits, Vol 111, 1969, No 21, pp 1479.

C.E. Trans 5324

Comments on "Analysis of Normal Shock-Waves in a Gas-Particle Mixture", by T. D. Varma and N. K. Chopra, Zamp 18,650, by

Barbara Schmitt-v. Schubert.

GERMAN, per, Zeitschrift fur Angewandte Mathematik und Physik, Vol 20, No 2, 1969, pp 272-275.

Dept of Navy APL/JHU T-2415

The Study of Mixed Crystals and Solid Phases, by L. Vegard, 3 pp.

GERMAN, per, Z. Physik, 5, 1921, pp. 393-395.

*NBS TT 70-57849

On the Mechanisms of Molecular Motion in Crystals, by M. Volmer, 4 pp.

GERMAN, per, Z. Physik, 7, 1921, pp. 13-17.

*NBS TT 70-57851

Calculation of the Numbers of the Sodium Dispersion Centers, by V. K. Prokof'yev, 15 pp.

GERMAN, per, Zeit fuer Physik, Vol 58, Aug 1929, pp 255-267.

Dept of Navy NIC Trans 3037

The Temperature-Dependence of Recrystallization Phenomena in Solids, by

J.A.M. Van Liempt, 8 pp.

GERMAN, per, Z. Physik, 96, 1935, pp. 534-541.

*NBS TT 70-57848

Investigations into the Production and Demonstration of Alkali Atom Rays in the Energy Range Between 6

EV & 4000 EV, by M. Hollstein, H. Pauly, 17 pp. .

GERMAN, per, Z Physik, No 196, 1966, pp 353-364.

AEC/SC-Tr-70-4016

Scientific
Physics (Contd)

The Kinetics of Motion in Copper, by W. Nernst, 25 pp.

GERMAN, per, Z. Phys. Chem. 2, 1888, pp. 613-637.

*NBS TT 70-57831

Molecular Structure and Electrical Properties in Crystalline Salts, by C. Tubandt 30 pp.

GERMAN, per, Z. Phys. Chem. 87, 1914, pp. 513-542.

*NBS TT 70-57843

On the Ideas and Experiments of Particle Motion in Solids, by M. Volmer, 14pp.

GERMAN, per, Z. Phys. Chem, vol 115, 1925, pp. 239-252.

*NBS TT 70-57852

Theory and Measurement of Diffusion of Adsorbed Molecules on Solids, by

M. Volmer, 7 pp.

GERMAN, per, Z. Phys. Chem. vol 119, 1926, pp. 46-52.

*NBS TT 70-57853

On the Ionic Processes in Mixed Crystals of Some Very Pure Salts, by C. Tubandt, 10 pp.

GERMAN, per, Z. Phys. Chem. 129, 1927 pp. 69-78.

*NBS TT 70-57845

On the Theory of Crystal Growth, by I.N. Stranski, 20 pp.

GERMAN, per, Z. Phys. Chem, 136, 1928 pp. 259-278.

*NBS TT 70-57839

Chemical Reactions Occuring in Solid Salts, by C. Tubandt, 18 pp.

GERMAN, per, Z. Phys. Chem, A140, 1929 pp. 291-308.

*NBS TT 70-57847

The Purification of Metals Through Vaporization, I, by M. Straumanis, 22pp

GERMAN, per, Z. Phys. Chem. B13, 1931 pp. 316-337.

*NBS TT 70-57840

Scientific
Physics (Contd)

The Purification of Metals Through Vaporization, II, by M. Straumanis, 13 pp
GERMAN, per, Z. Phys. Chem. 19, 1932, pp. 63-75.
*NBS TT 70-57841

About the Theory of the Use of Metal-Electrodes in Measuring Transport in Electrolytes and Determining Atom Diffusion, I, 18 pp.
GERMAN, per, Z. Phys. Chem. 234, 1967, pp. 77-94.
*NBS TT 70-57836

About the Theory of the Use of Metal-Electrodes in Measuring Transport in Electrolytes and Determining Atom Diffusion, by Ch. Schnittler, 22 pp.
GERMAN, per, Z. Phys. Chem. 234, 1967 pp. 379-400.
*NBS TT 70-57837

Theory of Growth of Mixed Crystals, by C. Wagner, 10 pp.
GERMAN, per, Z. Phys. Chem. N.F. 1931 pp. 177-186.
*NBS TT 70-57855

The Kinetics of the Sulfidation of Silver, by St. Mrowec, 7 pp.
GERMAN, per, Z. Phys. Chem. N.F. 32, 1962, pp. 212-218.
*NBS TT 70-57830

Analysis of Polymers by Pyrolytic Gas Chromatography, by T. Garzo, T. Szekely. 23 pp.
HUNGARIAN, per, Kemial Kozlemenyek, Vol 31, No 3, 1969, pp 267-285.
AIR/FTD/HT-23-668-69

The Colloid Theory of the Structure of Plastic Lubricants, by Endre Vamos, Xeno Liebel. 15 pp.
HUNGARIAN, per, Magyar Kemikusok Lapja, No 12, 1968, pp 694-699.
AIR/FTD/HT-23-528-69

Phenomena of Diffusion in the Solid Phase by Radiation, by E. Germagnoli.
ITALIAN, per, La Metallurgia Italiana, 51, 1959, pp 505-508.
*Nat Bur Stand TT 70-59048

Scientific
Physics (Contd)

The Influence of Direct Electric Current on the Diffusion of Substances Precipitated in Metals, by G. Bianchi.
ITALIAN, per, Ric Sci Ricostruz, 17, 1947, pp 1987-1990.
*Nat Bur Stand TT 70-59052

Studies on the Characteristics of Chromizing-V, by S. Ueda.
JAPANESE, per, Tetsu-to-Hagane, Vol 42, 1956, pp 361-362.
*CFSTI TT 70-57188

Application of the Theory of Similarity to the Problems of Flow of Solids and Liquids in Pipes, by R. Zahaczewski.
POLISH, per, Przegląd Gorniczy, Vol 19, NO 10, 1963, pp 410-413.
ATS PJ-5407

A Utilization of the Lattice Units in the Representation of the Isothermal Reaction Curve, by L. C. Correa da Silva.
PORTUGUESE, per, Bol. ABM, Vol 6, 1950, pp 78-84.
*CFSTI TT 70-59044

Generalities of the Phenomena of Diffusion, by L. C. Correa da Silva.
PORTUGUESE, per, Bol ABM, Vol 8, 1952, pp 234-250.
*CFSTI TT 70-59043

Propulsion & Fuels

Combustion in Supersonic Flows About Different Bodies, by P. I. Chuskin.
RUSSIAN, per, AN SSSR, Zh. Vychislitel'noy Mat i Mat Fiz, Vol 9, No 6, 1969, pp 1367-1377.
*Dept of Navy APL/JHU J-1504

Increased Fuel Extraction in Ukraine Urged, by M. Aysenberg, 6 pp.
RUSSIAN, per, Ekonomika Sovetskoy Ukrainy, Moscow, No 11, 1969, pp 24-28.
JPRS 50585

Gas Generators for Atomic Power Stations, 11 pp.
RUSSIAN, per, Energiye, pp 229-235.
Dept of Navy NIC Trans 3045

Combined Action of TsIATIM-339 and Sulfonate Additives on the Performance of Properties of Ds-11 Oil, by A. M. Bugaychuk, Ye. A. Dzhashitov, et al. 5 pp.
RUSSIAN, per, Neftepererabotka i Neftekhimiya, No 3, 1969, pp 21-23.
AIR/FTD/HT-23-143-70

Tyumenskaya Oblast Gas Recovery Boom Cited, by N. A. Malyushin, 6 pp.
RUSSIAN, per, Neftyanik, Moscow, No 2, 1970, pp 10-13.
JPRS 50601

A Device for Measuring Deformation of Naval Gas Turbine Shafts Exposed to High Temperatures, by V. I. Lokarev. 8 pp.
RUSSIAN, per, Nikolayev. Korablestroitel'nyy Inst. Sudostroyeniye i Morskoye Sooruzheniya, No 8, 1968, pp 48-52.
AIR/FTD/MT-24-386-69

Jet Engines and Fuels, by V. N. Zrellov, V. A. Piskunov. 299 pp.
RUSSIAN, bk, Reaktivnyye Dvigateli i Toplivo, 1968, pp 1-311.
AIR/FTD/HT-23-244-69

The Problem of Selecting Lubricating Oils for Engines with Various Levels of Stress, by V. V. Shchagin, V. G. Kuz'kin. 31 pp.
RUSSIAN, per, Trudy Kaliningradskiy Tekhn Inst Rybnoy Prom i Khoz, No 19, 1966, pp 141-166.
AIR/FTD/HT-23-99-70

Investigations of Quantitative Addition of an Improver to D-48FL for Restoration of the Original Quality of the Oil, by G. P. Lyshko. 14 pp.
RUSSIAN, per, Trudy Kishinev. Sel'skokhozyaystvennyy Institut, Vol 53, 1967, pp 33-42.
AIR/FTD/MT-24-449-69

Systems for Deflection of the Jet Streams of Turbo-jet Engines, by A. A. Svyatogorov. 208 pp.
RUSSIAN, bk, Ustroystva Dlya Otkloneniya Reaktivnoy Strui Turboreaktivnykh Dvigatelay, 1968, pp 1-237.
NASA TT F-603

Investigations of External Supersonic Combustion, by M. Kallergis.
GERMAN, per, Deutsche Gesellschaft fur Luft-und Raumfahrt, Sept 22-24, 1969, Paper 26, 15 pp.
Dept of Navy APL/JHU T-2420

Results of Observations in the 1967 Spin Program, by V. M. Grigorevskiy. 39 pp.
RUSSIAN, bk, Itogi Nablyudeniya po Programme "Spin" v 1967 Godu, 6 Nov 1968, pp 3-42.
AIR/FTD/HT-23-150-70

Three Welding Methods Tested in Space, by V. B. Dmitriyev, 7 pp.
RUSSIAN, per, Khimiya i Zhizn', Moscow, No 2, 1970, pp 17-20.
JPRS 50658

Story of USSR Cosmonaut Training Center Related, by I. Kamainin, 7 pp.
RUSSIAN, np, Komsomol'skoye Znaniya, Kiev, 25 Apr 1970, p 31.
JPRS 50683

'Interkosmos-1' Satellite in Orbit, by I. P. Tindo, I. A. Zhitnik, 20 pp.
RUSSIAN, per, Priroda, Moscow, No 4, 1970, pp 78-87.
JPRS 50659

Photometric Observations of Satellites and the Spin Program, by V. M. Grigorevskiy. 14 pp.
RUSSIAN, rpt, Proceedings of COSPAR Conf, Paris, 1970, 14 pp.
NASA TT F-12,896

Three-Dimensional Lunar Trajectories, by V.A. Yegorov, 149 pp.
RUSSIAN, Prostranstvennaya Zadacha Dostizheniya Luny, 1965
CFSTI TT 68-50306
NASA TT F-504

Inhabited Orbital Stations, by V. Volkov, 8 pp.
RUSSIAN, np, Sotsialisticheskaya Industriya, Moscow, 12 Apr 1970, p 4.
JPRS 50711

Use of Slush Hydrogen for the Propulsion of Spacecraft, by D. Chain. 15 p.
FRENCH, rpt, Proceedings of 9th International Aeron Congress, Paris, 2-4 June 1969, 19 pp.
NASA TT F-12,827

For "Cheap" Transportation Through Space, 8 pp.
FRENCH, per, Rach Spatiale, Vol 8, No 11, 1969, pp 17-19.
NASA TT F-12,880

Scientific
Space Technology (Contd)

Stabilization of Communication Satellites
by Means of Fly Wheels, by U. Renner.
GERMAN, per, Raumfahrtforschung, No. 2,
1970, pp. 75-78.
*NASA TTF-13,116

San Marco Project, by Luigi Broglio, et al.
ITALIAN, per, Scuola di ing. Aerospaziale Atti del
Centro Ric. Aerospaziale, Vol 15, June 1967.
NASA TT F-12,815

Miscellaneous

Questions of Automation and Computer Technology
in the Works of Scientists of the Riga Lenin
Komsomol Institute of Civil Aviation Engineers,
by N. P. Sevast'yanov, A. N. Sklyarevich, 6 pp.
RUSSIAN, per, Avtomatika i Vychislitel'naya
Tekhnika, No 5, 1967, pp 14-16.
AIR/FTD/HT-23-71-70

Science, Technological Progress Discussed at
Azerbaijdzhan SSR Academy of Sciences Meeting,
5 pp.
RUSSIAN, per, Bakinskiy Rabochiy, Baku, 26 Mar
1970, pp 1-2.
JPRS 50520

Prospects for Unprecedented Reforms: General
Meeting of Academy of Sciences USSR, 6 pp.
RUSSIAN, np, Izvestiya, Moscow, 6 Feb 1970, p 3.
JPRS 50650

Armenian Scientists Prepare for Anniversary of
V. I. Lenin, 5 pp.
RUSSIAN, per, Kommunist, Yerevan, 20 Mar 1970,
p 3.
JPRS 50520

Armenian Academy of Sciences Commemorate V. I.
Lenin's 100th Birthday, 17 pp.
RUSSIAN, per, Kommunist, Yerevan, 27 Mar 1970,
pp 1-2.
JPRS 50520

Science Serves Progress, General Meeting of
Academy of Sciences USSR, 6 pp.
RUSSIAN, np, Pravda, Moscow, 5 Feb 1970, p 2.
JPRS 50650

Scientific
Miscellaneous (Contd)

Keldysh Addresses USSR Academy of Sciences Meet-
ing, 6 pp.
RUSSIAN, np, Ratochaya Gazeta, Kiev, 4 Feb 1970,
pp 1, 3.
JPRS 50688

In Sunny Cuba, by Yu. Privezentsev, 6 pp.
RUSSIAN, per, Rybovodstvo i Rybolovstvo, Vol 12,
No 5, Sept-Oct 1969, pp 16-17.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 24
On Loan

The Fourth Congress of Rosokhotrybolovsoyuz, by
A. Korol'kov, 5 pp.
RUSSIAN, per, Rybovodstvo i Rybolovstvo, Vol 12,
No 5, 1969, pp 28-29.
Dept of Interior
BCF/OFF
A-36-Feb 1970-No 132
On Loan

General Meeting of Academy of Sciences USSR,
6 pp.
RUSSIAN, np, Sovetskaya Belorussiya, Minsk, 3
Apr 1970, p 1.
JPRS 50650

Revolution in Technology: General Meeting of
Academy of Sciences USSR, 7 pp.
RUSSIAN, np, Sovetskaya Rossiya, Moscow, 4 Feb
1970, p 3.
JPRS 50650

Main Directions of Technical Progress: General
Meeting of Academy of Sciences USSR, 5 pp.
RUSSIAN, np, Sovetskaya Rossiya, Moscow, 5 Feb
1970, pp 1-2.
JPRS 50650

Interdependence of Architecture and Technology,
by V. N. Dobretsov, G. I. Zverev, 9 pp.
RUSSIAN, per, Stroitel'stvo i Arkhitektura Len-
ingrada, No 3, Mar 1970, pp 21-23.
JPRS 50692

Open Discussion Demanded in Science, 21 pp.
RUSSIAN, per, Ural, Sverdlovsk, Aug 1968-
Nov 1969.
JPRS 50578

Scientific
Miscellaneous (Contd)

Regulation of Binding Pressures in Diffusion
Couples, by A. V. Antonovich.
RUSSIAN, per, Zavodskaya Laboratoriya, Vol 21,
1955, pp. 991-992.
*CFSTI TT 70-59121

Changing Role of Academy of Sciences Dis-
cussed by Head, by Angel Balevski, 8 pp.
BULGARIAN, per, Rabotnichesko delo, Sofia,
14 May 1970, pp 2-3.
JFRS 50643

Institute of Mathematics with Computer Center
Described, by Lyubomir Iliev, 14 pp.
BULGARIAN, per, Fiziko Matematichesko
Spisanie, Sofia, Vol 12, No 4, Oct-Dec 1969,
pp 265-274.
JFRS 50643

Activities of the Institute of Geophysics
Surveyed, by Lyubomir Krustanov, 7 pp.
BULGARIAN, per, Fiziko Matematichesko
Spisanie, Sofia, Vol 12, No 4, Oct-Dec 1969,
pp 277-282.
JFRS 50643

A Compendium of Constitutional Ternary
Diagrams of Metallic Systems, by
W. Guertler, M. Guertler, 705pp.
GERMAN, bk, title unknown
CFSTI TT 69-55069

20 Years of Research of the Inland Fisheries
Institute, by H. Herold.
GERMAN, per, Deutsche Fischerei Zeitung, Vol 16,
No 10, 1959, pp 299-307.
*Dept of Interior
BCF/OFF
A-37-March 1970-No 133

Principles for Evolution of Government
Science Approved, 5 pp.
HUNGARIAN, per, Akademiai Kozlony, Budapest,
17 Apr 1970, pp 66-68.
JFRS 50639

Lenard Discusses Developments in the Physical
Sciences, by Pal Lenard, 22 pp.
HUNGARIAN, per, Magyar Tudomany, Budapest,
Apr-May 1970, pp 284-299.
JFRS 50610

Scientific
Miscellaneous (Contd)

Twenty-Year History of Academy of Sciences
Summarized, by Janos Antal, Vince Grolmusz,
23 pp.
HUNGARIAN, per, Magyar Tudomany, Budapest,
Apr-May 1970, pp 396-411.
JFRS 50610

Winners of State, Kossuth, Other Prizes Listed,
18 pp.
HUNGARIAN, per, Nepszabadsag, Budapest,
2 Apr 1970, pp 5, 6, 7, 8.
JFRS 50639

Private Communication of the Author, by
P. Canagni. 1 pp.
ITALIAN, rpt, Proceedings of the Italian Physical
Society, XII.
*Nat Bur Stand TT 70-59046

Marine Fisheries and Agriculture - a Comparison
of Two Sectors, by S. Okolo-Kulak, 3pp.
POLISH, per, Technika i Gospodarka Morska, vol 20
No. 2, April, 1970, pp. 63-65.
*USDI/BCF TT 70-55128

Sources of Error and Confirmation in the Determination
of Methylmercury Radical, by S. Jensen. 7 pp.
SWEDISH, per, Nordisk Hugiensish Tidskrift, Vol 50,
No 2, 1969, pp 85-88.
Dept of Interior
BCF/OFF
A-37-March 1970-No 23
On Loan

INFORMATION RECEIVED DURING
JUNE
ON COVER-TO-COVER TRANSLATIONS

Acta Biochimica Polonica, Vol 17, No 1, 1970.
CFSTI TT 70-55000/1

Biokhimiya, Vol 34, No 5, Part 2, Sept-Oct 1969.
CB

Acta Physiologica Polonica, Vol 20, No 4, 1969.
CFSTI TT 69-50009/4

Biokhimiya, Vol 34, No 6, Pt 1, Nov-Dec 1969.
CB

Acta Poloniae Pharmaceutica, Vol 26, No 4, 1969.
CFSTI TT 69050004/4

Byulleten' Eksperimental'noy Biologiy i Meditsiny,
Vol 67, No 1-6, 1969.
CB

Acta Poloniae Pharmaceutica, Vol 26, No 5, 1969.
CFSTI TT 69-50004/5

Byulleten' Eksperimental'noy Biologiy i Meditsiny,
Vol 68, No 7-11, 1969.
CB

Archivum Immunologiae et Therapiae Experimentalis,
Vol 18, No 1, 1970.
CFSTI TT 70-55006/1

Byulleten' Eksperimental'noy Biologiy i Meditsiny,
Vol 68, No 12, 1969.
CB

Arhiv Za Poljoprivredne Nauke, Vol 22, No 76, 1969.
CFSTI TT 69-51007/1

Denki Gakkai Zasshi, Vol 89, No 9, 1969.
IEEE

Arhiv Za Poljoprivredne Nauke, Vol 22, No 78, 1969.
CFSTI TT 69-51007/3

Denki Gakkai Zasshi, Vol 89, No 10, 1969.
S/E

Avtomatika i Telemekhanika, No 11, 1969.
CB

Denshi Tsushin Gakkai Ronbunshi, Vol 52, No 7, 1969.
IEEE

Avtomatika i Telemekhanika, No 12, 1969.
CB

Denshi Tsushin Gakkai Ronbunshi, Vol 52, No 8, 1969.
IEEE

Avtomatyka, No 5, 1969.
S/E

Denshi Tsushin Gakkai Ronbunshi, Vol 52, No 9,
1969.
Scripta Electronica

Avtomatyka, No 6, 1969.
S/E

Doklady Akademiy Nauk SSSR, Vol 186, No 1-6,
Feb 1970.
AGI

Biofizika, Vol 14, No 3, 1969.
Pergamon Press

INFORMATION RECEIVED DURING
JUNE
ON COVER-TO-COVER TRANSLATIONS

Acta Biochimica Polonica, Vol 17, No 1, 1970.
CFSTI TT 70-55000/1

Biokhimiya, Vol 34, No 5, Part 2, Sept-Oct 1969.
CB

Acta Physiologica Polonica, Vol 20, No 4, 1969.
CFSTI TT 69-50009/4

Biokhimiya, Vol 34, No 6, Pt 1, Nov-Dec 1969.
CB

Acta Poloniae Pharmaceutica, Vol 26, No 4, 1969.
CFSTI TT 69050004/4

Byulleten' Eksperimental'noy Biologiy I Meditsiny,
Vol 67, No 1-6, 1969.
CB

Acta Poloniae Pharmaceutica, Vol 26, No 5, 1969.
CFSTI TT 69-50004/5

Byulleten' Eksperimental'noy Biologiy I Meditsiny,
Vol 68, No 7-11, 1969.
CB

Archivum Immunologiae et Therapiae Experimentalis,
Vol 18, No 1, 1970.
CFSTI TT 70-55006/1

Byulleten' Eksperimental'noy Biologiy i Meditsiny,
Vol 68, No 12, 1969.
CB

Arhiv Za Poljoprivredne Nauke, Vol 22, No 76, 1969.
CFSTI TT 69-51007/1

Denki Gakkai Zasshi, Vol 89, No 9, 1969.
IEEE

Arhiv Za Poljoprivredne Nauke, Vol 22, No 78, 1969.
CFSTI TT 69-51007/3

Denki Gakkai Zasshi, Vol 89, No 10, 1969.
S/E

Avtomatika i Telemekhanika, No 11, 1969.
CB

Denshi Tsushin Gakkai Ronbunshi, Vol 52, No 7, 1969.
IEEE

Avtomatika i Telemekhanika, No 12, 1969.
CB

Denshi Tsushin Gakkai Ronbunshi, Vol 52, No 8, 1969.
IEEE

Avtomatyka, No 5, 1969.
S/E

Denshi Tsushin Gakkai Ronbunshi, Vol 52, No 9,
1969.
Scripta Electronica

Avtomatyka, No 6, 1969.
S/E

Doklady Akademiy Nauk SSSR, Vol 186, No 1-6,
Feb 1970.
AGI

Biofizika, Vol 14, No 3, 1969.
Pergamon Press

- Doklady Akademiy Nauk SSSR, Vol 188, No 1-6,
Apr 1970.
AGI
- Izvestiya Akademiy Nauk SSSR, Metally, No 2, 1969.
Scientific Information Consultants
- Doklady Akademiy Nauk SSSR, Vol 189, No 1-3,
Nov 1969.
CB
- Izvestiya Akademiy Nauk SSSR, Seriya Fizicheskaya,
Vol 33, No 5, 1969.
Columbia Technical Translations
- Doklady Akademiy Nauk SSSR, Vol 190, No 1-6, 1970.
The Am Math Soc
Vol 11, No 1, Jan-Feb 1970
- Izvestiya Akademiy Nauk SSSR, Seriya Fizicheskaya,
Vol 33, No 6, 1969.
Columbia Technical Translations
- Elektrokhimiya, Vol 5, No 11, 1969.
CB
- Izvestiya VUZ Fizika, Vol 9, No 5, 1966.
The Faraday Press
- Elektrokhimiya, Vol 5, No 12, 1969.
CB
- Kolloidnyi Zhurnal, Vol 31, No 6, Nov-Dec 1969.
CB
- Fizika Tverdogo Tela, Vol 11, No 11, 1969.
The Am Inst of Phys
Vol 11, No 11, May 1970
- Kristallografiya, Vol 14, No 6, Nov-Dec 1969.
The Am Inst of Phys
Vol 14, No 6, May-June 1970
- Fiziologiya Rasteny, Vol 8, No 6, Nov-Dec 1961.
The Am Inst of Biol Sci
Vol 8, No 6, May-June 1962
- Larus, Vol 20, 1966.
CFSTI TT 69-51014
- Geologiya Nefti i Gaza, Vol 8, No 8, 1964.
Petroleum Geology
- Lijecnicki Vjesnik, Vol 91, No 3, 1969.
CFSTI TT 69-51002/3
- Gidrobiologicheskiy Zhurnal, Vol 5, No 2, 1969.
The American Fisheries Society
- Lijecnicki Vjesnik, Vol 91, No 4, 1969.
CFSTI TT 69-51002/4
- Gigiyena i Sanitariya, Vol 34, No 1-3, 1969.
CFSTI TT 69-55003/1
- Lijecnicki Vjesnik, Vol 91, No 5, 1969.
CFSTI TT 69-51002/5
- Gigiyena i Sanitariya, Vol 34, No 4-6, 1969.
CFSTI TT 69-55003/2
- Nukleonika, Vol 13, No 9, 1968.
CFSTI TT 68-50011/9
- Glasnik Hemijskog Drustva - Beograd, Vol 33,
No 5-6-7, 1968.
CFSTI TT 68-50056/5-6-7
- Nukleonika, Vol 13, No 10, 1968.
CFSTI TT 68-50011/10
- Izvestiya Akademiy Nauk SSSR, Metally, No 1, 1969.
Scientific Information Consultants
- Nukleonika, Vol 13, No 11-12, 1968.
CFSTI TT 68-50011/11-12
AEC-tr-6931/11-12 UC-34

Nukleonika, Vol 14, No 1, 1969. CFSTI TT 69-50012/1 AEC-tr-7027/1 UC-34	Vestnik Protivovozdushnoy Oborony, No 1, 1970. *ACSI J-8180
Optika i Spektroskopiya, Vol 27, No 6, Dec 1969. The Optical Society of America	Vestnik Protivovozdushnoy Oborony, No 2, 1970. *ACSI J-8181
Prikladnaya Biokhimiya i Mikrobiologiya, Vol 4, No 2, 1968. The Faraday Press	Vestnik Protivovozdushnoy Oborony, No 3, 1970. *ACSI J-8273
Radiotekhnika i Elektronika, No 10, 1969. S/P	Vestnik Svyazi, Vol 30, No 3, 1970. JPRS 50716
Savremena Poljoprivreda, Vol 17, No 4, 1969. CFSTI TT 69-51001/4	Voyenno Meditsinskiy Zhurnal, No 2, 1970. ACSI J-8183
Steklo i Keramika, Vol 26, No 9-10, 1969. CB	Voyenno Meditsinskiy Zhurnal, No 4, 1970. *ACSI J-8448
Tekhnika i Vooruzheniye, No 11, 1969. ACSI J-7753	Voyennyy Vestnik, No 10, 1969. ACSI J-7654
Tsvetnye Metally, Vol 41, No 7, 1968. Primary Sources Vol 9, No 7, 1968	Voyennyy Vestnik, No 11, 1969. ACSI J-7899
Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil, No 10, 1969. ACSI J-7627	Voyennyy Vestnik, No 4, 1970. *ACSI J-8451
Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil, No 4, 1970. *ACSI J-8449	Yadernaya Fizika, Vol 10, No 5, Nov 1969. The Am Inst of Phys Vol 10, No 5, 1970
Vestnik Akademiy Nauk SSSR, Vol 40, No 4, 1970. JPRS 50709	Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 57, No 3, Sept 1969. The Am Inst of Phys Vol 30, No 3, 1970
Vestnik Protivovozdushnoy Oborony, No 11, 1969. *ACSI J-7905	Zhurnal Obshchei Khimiy, Vol 39, No 11, 1969. CB
Vestnik Protivovozdushnoy Oborony, No 12, 1969. *ACSI J-7906	Zhurnal Obshchei Khimiy, Vol 39, No 12, 1969. CB

Zhurnal Prikladnoy Khimiy, Vol 42, No 12, 1969.
CB

Zhurnal Strukturnoy Khimiy, Vol 10, No 5,
Sept-Oct 1969.
CB

Zhurnal Tekhnicheskoy Fiziki, Vol 39, No 11, 1969.
American Institute of Physics
Vol 14, No 11, 1970

Zhurnal Tekhnicheskoy Fiziki, Vol 39, No 12, 1969.
The Am Inst of Phys
Vol 14, No 12, June 1970

ACTA BIOCHIMICA POLONICA

Vol 17, No 1, 1970

CONTENTS

Anna Mazanowska and A. M. Danciewicz, The role of lipids in ferrochelatase activity	1
Zofia Kasprzyk, J. Śliwowski and Dioniza Boleslawska-Kokoszka, The variations of triterpenoids in germinating seeds of <i>Calendula officinalis</i>	11
Ina Gąsiorowska, Zofia Porembska, J. Jachimowicz and Irena Mochnacka, Isoenzymes of arginase in rat tissues	19
Celina Janion, Barbara Żmudzka and D. Shugar, The preparation of 2'-O-methylcytidine-5'-mono and pyrophosphate, and poly-2'-O-methylcytidylic acid	31
W. Kędzierski and J. Pawelkiewicz, Stabilization of isoleucyl-tRNA synthetase from yellow lupin seeds by transfer RNA	41
M. Tichy and Magdalena Fikus, Investigations on the structures of xanthine-uracil and xanthine-adenine copolymers and their complexes with homopolynucleotides . . .	53
Books reviewed (in Polish)	R1

Available From CFSTI TT 70-55000/1

ACTA PHYSIOLOGICA POLONICA

Vol 20, No 4, 1969

CONTENTS

	Page
Kochman K., Domański E.: Studies on Purification of the Hypothalamic Substances Responsible for the Release of Gonadotropins from the Pituitary Gland	441
Barcikowski B., Domański E.: Secretion Rate of the Cortisol and Cortisone from the Adrenal Gland in Sheep before and after Parturition	454
Billewicz-Stankiewicz J., Gąłbek W., Tyburczyk W.: Effect of Low-frequency Horizontal Vibration on the Contents of Catecholamines and their Catabolites in the Brain Tissue	463
Chwaliński S.: Search of a Model of Kinetics of Transplanted Thymocytes in Syngenic and Allogenic System in Rats. I. Transplantation of ⁵¹ Cr-labeled Thymocytes	468
Chwaliński S.: Search of a Model of Kinetics of Transplanted Thymocytes in Syngenic and Allogenic System in Rats. II. Kinetics of Transplanted Thymocytes in the Light of Quantitative Analysis of Experimental Results	475
Szot Z.: Citric Acid and Calcification of Bone Tissue	483
Niewiadomska-Skołasińska K.: Influence of Acute General Anoxia on Cardiac Rhythm and Arterial Blood Pressure in Cats	496
Garbuliński T., Dębowy J., Dynarowicz I., Lój W.: Role of the Adrenergic Receptor in Regulation of the Metabolism of Macroenergetic Cardiac Phosphates. I. Effect of Alpha- and Beta-Adrenolytic Agents	504
Garbuliński T., Dębowy J., Dynarowicz I., Lój W.: Role of the Adrenergic Receptor in Regulation of the Metabolism of Macroenergetic Cardiac Phosphates. II. Effect of Adrenalinemia after Alpha- and Beta-Adrenolytic Agents	510
Klukowska L., Tokarski J.: „Escape” of the Heart in the Inhibitory Reflex	518
Klukowska L., Tokarski J.: Plasticity of the Spinal Preparation and Changes in Reflex Excitability	529
Patkowski J., Halawa B., Gieldanowski J.: Studies on Serum Proteolytic Activity and the Blastic Reaction after Allotransplantation of Skin in Rabbits	538
Farbiszewski R., Worowski K.: Thromboplastic and Antiheparin Activity of Homogenates of Various Organs in Rabbits Fed Cholesterol Diet	545
Worowski K., Głowiński S.: Blood Coagulation and Fibrinolysis after Hemorrhage in the Dog	549
Zieliński A., Religa A., Lipski J.: A Method for Continuous Measurements of Work of the Isolated Heart	556
Aulich J.: Measurement of the Intensity of Blood Flow by the Use of an Electromagnetic Method	562

Available From CFSTI TT 69-50009/4

CONTENTS

S. Biniecki, Z. Kabzińska: Synthesis of Pyridylmethanilamides of Nicotinic Acid	277
S. Biniecki, K. Niewiadomski: Synthesis of β -(1-azacyclooctyl)- β -keto-isopropylamines and γ -(1-azacyclooctyl)- β -hydroxypropylamines	283
B. Lubimowski, L. Berezowski: 2-Hydrazinomethyl-4-quinazalone, 2-Mercapto-methyl-4-quinazalone and their Derivatives	294
W. Wiśniewski, H. Piasecka: Investigation of Atropine Stability in Injection Solutions by Determination with Conductometric Micromethod	304
W. Wiśniewski, T. Gorta: Investigation of the Effect of Temperature and Time on Hydrastine to Hydrastinine Oxidation in the Presence of Air Oxygen and Steam in Liquid Extract and Rhizome of <i>Hydrastis canadensis</i>	313
T. Pelczar, B. Janik: Determination of Molybdenum in Medicinal Tinctures by the Kinetic Method	318
M. Przyborowska: Separation of Alkaloids from <i>Tinctura Ipecacuanhae</i> by Paper Chromatography and Countercurrent Distribution	323
E. Pawelczyk, Z. Plotkowiak, A. Krajewska: Analysis of Degradation Products of Drugs XXI. Qualitative and Quantitative Methods for Analysis of Degradation Products of Thiamine Hydrochloride	329
B. Janik, W. Rzeszutko: Colorimetric Determination of Gold in Solganal B	337
H. Basińska, M. Tarasiewicz: Determination of Phenothiazine Derivatives. I. Complexometric Determination of Largactil	342
A. Piotrowska, E. Kłos: Spectrophotometric Determination of Naphtyl-methylimidazol Nitrate	346
G. Pludro, K. Karłowski, M. Mańkowska, H. Woggon, W. J. Uhde: Toxicological and Chemical Studies of Some Epoxy Resins and Hardeners	352
Z. Plotkowiak: Chromatographic Investigation of Alkaline Hydrolysis of Tween 80	358
H. Kąkol: Assays of Histamine in Liver Extracts by Means of Paper Chromatography	364
K. Myszkowska, J. Tautt, S. Tuszyńska, K. Piętkowska: Application of Microbiological Assays for the Determination of Pantothenic Acid and Calcium Pantothenate in Medicinal Preparations and in Biological Materials	369
A. Polanowski, Z. Olichwier: Preparation of Urease and Trypsin Inhibitor from Soya Beans	378
SCIENTIFIC COMMUNICATIONS	
J. Brajtburg: Quinoline-3-carboxylic Acid Dimethylamide from the Cyanomethyl Ester	384
LETTER TO THE EDITOR	
B. Kostka: Phytochemical Analysis of the Herb of <i>Clinopodium Vulgare</i> L. (Lamiaceae)	386

Available from CFSTI TT 69-50004/4

ACTA POLONIAE PHARMACEUTICA

Vol 26, No 5, 1969

M. Goleniewska-Furmanowa: Antimitotic Activity of Bases and Extracts From Leaves of Cabombaceae, Nympeaceae and Nelumbonaceae	389
I. Zawadowska, T. Zawadowski: Reaction of Acetyl Chloride with N-Hydroxymethylamides of Some Aromatic Acids	412
E. Pawelczyk, R. Wachowiak: Chemical Characteristics of Degradation Products of Drugs. IV. Degradation Mechanism of Phenylbutazone (FB) in Pharmaceutical Preparations	425
W. Wiśniewski, T. Gorta: Inaccuracy of Hydrastine Determination by the P. P. II Method in the Liquid Extract of Hydrastis Canadensis (Extr. Hydrastidis fl.)	432
W. Wiśniewski, J. Szlaski, Z. Furmańczyk: Physico-chemical Investigations of the Fuse of 4-methylamino-2,3-dimethyl-1-phenylpyrazoline with 5,5-diethylbarbituric Acid — the Component of Pharmaceutical Preparations	436
Z. Olszewski, A. Kubis: Examination of the Liberation Process of Active Substances from Ointment Bases by Means of the Author's Construction Apparatus	440
K. Bolewski, T. Tomaszekiewicz: Chelate Compounds of Some Ammonium Salts with Poly (Acrylic Acid)	450
D. Ruczaj: Countercurrent Distribution of Compounds Occurring in Cultures of Streptomyces sp. 64-575	465
H. Galecka: Influence of Some Hydroxy-Acids and Their Derivatives on Production and Excretion of Bile in Guinea Pigs	473
S. Deptuła, K. Pączek, J. Tautt: Studies on Contents of Some Vitamins and Pyruvic Acid, and upon Acetylation in Alloxan Diabetic Rabbits	480
H. Krywicka-Doczkał, H. Szafranowa: Studies on Toxicity New Derivatives of Diphenylsulphone	487

Available From CFSTI TT 69-50004/5

ARCHIVUM IMMUNOLOGIAE ET THERAPIAE EXPERIMENTALIS

Vol 18, No 1, 1970

CONTENTS

	Page
MARIA ŁOBODZIŃSKA, JAN WŁODARCZYK, ROMAN SWOŃ, FRANCISZEK IWANČAK, TADEUSZ KIDANKIEWICZ and ZOFIA SKURSKA: Studies on the Viruses of Asiatic Influenza. VII. Hong Kong Influenza	1
ANNA ŁUCZKIEWICZ-MULCZYKOWA and MARIA OSIŃSKA: Differentiation of Human Isoagglutinins in the Gm system	12
ANNA STELMACHOWSKA, ZOFIA BŁACH-OLSZEWSKA and ZOFIA SKURSKA: The Action of Interferon in Transplantable Lymphatic Leukemia of Gross	16
WALENTY HARTWIG, ANNA KASPERLIK-ZAŁUSKA, MARIA KRAJ, WŁODZIMIERZ ŁAWKOWICZ and JAROSŁAW ŚNIGUROWICZ: The Behavior of Immunoglobulins in Adrenal Hyperfunction before Treatment and Following Bilateral Adrenalectomy	23
HENRYK MATEJ: Cytotoxic Antibodies after Skin Allotransplantation in Rabbits	29
HENRYK MATEJ: Antigenic Differentiation of Rabbit Lymphocytes	42
DANUTA SCHLESINGER and JOLANTA SULICH: Types of Acid Phosphatase of Erythrocytes in the Polish Population	54
LESZEK TOMASZEWSKI and SAMUEL P. BESSMAN: A New Method of Measuring the Incorporation of Labeled Amino Acid by Leukocytes	68
JERZY HOŁOWIECKI: Studies on the Cytotoxic Properties of Sera of Patients with Glomerulonephritis in Tissue Cultures of Human Kidney Cells	78
ZBIGNIEW WIECZOREK and JERZY KOTZ: The Modifying Influence of Streptomycin on the Course of Experimental Tuberculosis in Rabbits	88
MIECZYSLAW KRAUZE and STANISŁAW KOŚMIDER: Electrolyte Disorders in the Blood Serum and Central Nervous System in the Course of Experimental Abortive Anaphylactic Shock and the Protective Action of a Surface-Active Agent	109
MARIAN TYC: Inomycin, a New Antibiotic of the Cycloheximide Group. I. Characteristics of the Strain and Antibiotic Production	117
MARIAN TYC: Inomycin, a New Antibiotic of the Cycloheximide Group. II. Isolation and Characterization of the Antibiotic	129
MARIAN WILIMOWSKI, KRYSZYNA ORZECZOWSKA, JÓZEF PRANDOTA and JADWIGA BARCZYŃSKA: Comparative Quantitative Studies on Cholinolytics. III. The Action of Propanteline, Methanteline, Oxyphenonium and Diphepanil	139
BOGUSŁAW POBRAŃSKI and MIECZYSLAW KONIECZNY: New P-di-(2-aminopropyl)-benzene Derivatives.	143

Available From CFSTI TT 70-55006/1

CONTENTS

	Page
Cedomir Obračević, Stevan Bačvanski, Timotej Čobić, and Sofija Vučetić: The Effect of Different Protein Quantities in the Concentrated Rations of Young Fattening Bulls Fed <i>Ad libitum</i>	5
Aleksandar Ognjanović, Sonja Karan-Đurđić, Jaroslav Joksimović, Vladimir Perić, and Dušan Cavoški: The Effect of Methylthiouracil Applied in Fattening Young Bulls and Heifers on Weight Gain Circass Yield and Meat Properties	17
Vukosava Čeranić: A Study of Heritability (h^2) of Some Wool Properties in Merino Sheep	27
Miloje Sarić and Milun Petrović: The Effect of N, P, K, Ca, S and Mg on Morphogenesis, Synthesis of Or- ganic Matter, and on Chemical Composition of Wheat Plants	37
Branislava Tešić-Jovanović: A Study on the Possibilities of Producing Cocksfoot Seed (<i>Dactylis glo-</i> <i>merata</i> L.) during the Second Mowing	51
Stojanka Ocokoljić, Zbignjev Paris, and Dragoš Vujović: The Effect of Fertilization with Nitrogen with Different Amounts of Phosphorus and Potassium on Reclaimed Grasslands of <i>Nardetum strictae</i> Plant Associations	61
Vladimir Đorđević and Branislava Tešić-Jovanović: A Study on the Effect of Cocksfoot (<i>Dactylis glomerata</i> L.) Seed Expo- sure to Sun on Germination Energy and Its Total Germination	73
Nikola Krstić and Nikola Pešev: Investigation of the Frequency and Stability of Restorer Factor Rf in Some Domestic Inbred Lines of Corn	77
Millvoje S. Mišović: The Relation between the Flowering Phase and the Length of Vegetative Period and the Time of Full Maturing of Corn (<i>Zea mays</i> L.)	83
Osman Sarić: Root Remains of Alfalfa, Red Clover and Their Mixtures with Grasses	117
Novica Vučić: Determining the Structural Stability of Soil	129
Milan Belić and Dragoslava Vuković: The Relationship between Milk Yield and Calf Mortality and Twin- ning in Cattle	135

Available from CFSTI TT 69-51007/1

CONTENTS

Nikola Pavićević:	
The Smonitsa of Šumadia and Its Contemporary Evolution	5
Mladen Jeremić and Miodrag Spasojević:	
Watering Regime of Sugar Beet in the Climatic Conditions of the Velika Morava Region	25
Radisav Jovanović:	
Effects of Plowing Depth and Farmyard Manure on Soil Porosity . . .	35
Petar Mišić:	
Fertilization Relationships Between Some Economically Important Apple Varieties	45
Radišoj Ćurić:	
The Significance of Nitrogen in the Nutrition of Wheat at Different Phases of Growth	55
Života Vojinović:	
Azotobacter as a Test of Nitrogen Fertilizers	69
Zora Sarić and Milun Petrović:	
Effects of Deficiencies in Nitrogen, Phosphorus, Potassium, Calcium, Sulphur and Magnesium on the Dynamics of Bacteria, Fungi and Azotofixators in Water Cultures of Wheat	81
Mladen Lekić and Ljubodrag Mihajlović:	
Coroebus elatus F. (Buprestidae, Coleoptera) A Strawberry Pest in Serbia	91
Pavle Ranković and Vojin Anastasijević:	
Improvement of Fattening Ability and Slaughter Values of the Crossbreed Pigs Obtained by Crossing the (♀) Improved Slavonian Black (up to the F ₁ or F ₂ Generation) and (♀) Large Black with (♂) Dutch Landrace	99
Jaroslav Joksimović:	
Physical, Chemical and Structural Characteristics of Buffalo Meat . . .	109
Radosav Subotić:	
Mutants in the Crvena Ranka Plum Variety	149

Available From CFSTI TT 69-51007/3

AUTOMATION and REMOTE CONTROL

A translation of *Avtomatika i Telemekhanika*

Consultants Bureau journals appear about six months after the publication of the original Russian issue. For bibliographic accuracy, the English issue published by Consultants Bureau carries the same number and date as the original Russian from which it was translated. For example, a Russian issue published in December will appear in a Consultants Bureau English translation about the following June, but the translation issue will carry the December date. When ordering any volume or particular issue of a Consultants Bureau journal, please specify the date and, where applicable, the volume and issue numbers of the original Russian. The material you will receive will be a translation of that Russian volume or issue.

Number 11

November, 1969

CONTENTS

Engl./Russ.

CONTINUOUS CONTROL SYSTEMS

Development of an Analytical Method of Synthesizing Conditionally Optimal Controls of a Nonlinear Plant—A. A. Krasovskii	1715	5
Stability of Controlled Systems with Bounded Nonlinearities—A. Kh. Gel'g	1724	15
Synthesizing an Optimal Control—R. A. Velershtein and A. M. Formal'skii	1732	23
Stability of Systems Having Conservative Plants—O. Palusinski	1738	30
Estimating the Stability of an Automatic Control System—Nguyen Thuc Loan	1746	39
Estimating the Conditional Probability Density of the Phase Coordinates from Incomplete Information—I. A. Boguslavskii	1751	44

DISCRETE SYSTEMS

Method of Formulating the Equations for the Dynamics of Discrete Control Systems Having Cyclic Interruption of the Information Quantization Frequency—V. G. Voevodin	1765	59
Nontracking Automatic Optimization of a Certain Class of Nonminimal-Phase Systems—L. A. Shirokov	1773	67
Difference-Type Relay Extremal Systems with Transport Delays—N. N. Leonov	1780	75

ADAPTIVE SYSTEMS

Investigation of Extremal Systems with Variable Optimizer-Adjustment Parameters—N. G. Gorelik and A. I. Kaplinskii	1790	87
Adaptive Functional Transformers in the Problem of Determining the Parameters of an Engineering Process from Indirect Indications—É. D. Aved'yan and R. A. Simsar'yan	1797	94

LARGE-SCALE SYSTEMS

Choice of Technical Means for Automated Inventory-Control Systems—A. A. Voronov and Yu. V. Chistyakov	1802	100
---	------	-----

AUTOMATA

Certain Training Algorithms for Φ -Machines, Using Potential Functions—E. Ceangă	1816	115
Analysis and Properties of Maximal-Length Sequences—V. I. Dotsenko and R. G. Faradzhiev	1820	119
One Class of Games Connected with Models of Collective Behavior—A. V. Malishevskii and Yu. D. Tenisberg	1828	128

(Contd)

Available From Consultants Bureau

	Engl./Russ.
Method for the Minimization of Boolean Functions—Yu. M. Krasnykh	1838 138
AUTOMATIC CONTROL IN BIOLOGICAL SYSTEMS	
Random Nets of Pulse Neurons—D. Ya. Averbukh	1844 145
TECHNICAL MEANS	
Optimal Control of Electromechanical Devices—A. Yu. Cherkashin	1852 154
COMPUTING TECHNIQUES IN AUTOMATIC CONTROL	
Quasihomogeneous Computation Structures Based on Digital Integrators —L. S. Bershtein, A. V. Kalyaev, V. I. Kodachigov, and A. N. Melikhov	1861 165
MODELS OF CONTROLLED PLANTS	
Optimal Planning of Experimental Investigations—I. N. Vuchkov and G. K. Krug	1866 171
TECHNICAL NOTES	
Periodic Solution of n-th Order Equations with Relay Control—Yu. S. Kolesov	1872 178
Servosystem Including a Computer—P. A. Yakimov	1876 182
Self-Reproduction of Automata in Homogeneous Media—V. M. Chadeev	1880 186
Optoelectronic Multistable Phase-Pulse Element—A. M. Sharadkin	1883 189
BOOK REVIEWS	
Dragoslov Siljak, Nonlinear Systems — Their Parameter Analysis and Design —Reviewed by Ya. Tsypkin	1886 192

The Russian press date (podpisano k pechaty) of this issue was 11/4/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

AUTOMATION and REMOTE CONTROL

A translation of *Avtomatika i Telemekhanika*

Consultants Bureau journals appear about six months after the publication of the original Russian issue. For bibliographic accuracy, the English issue published by Consultants Bureau carries the same number and date as the original Russian from which it was translated. For example, a Russian issue published in December will appear in a Consultants Bureau English translation about the following June, but the translation issue will carry the December date. When ordering any volume or particular issue of a Consultants Bureau journal, please specify the date and, where applicable, the volume and issue numbers of the original Russian. The material you will receive will be a translation of that Russian volume or issue.

Number 12

December, 1969

CONTENTS

Engl./Russ.

CONTINUOUS CONTROL SYSTEMS

Problem of Absolute Stability—S. K. Persidski	1889	5
Frequency Properties of Optimal Linear Systems with Several Controls—A. G. Aleksandrov	1896	12
Statistical Investigation of Nonlinear Oscillatory Systems in Steady-State Modes —L. G. Evlanov and I. E. Kazakov	1902	18
Statistical Approach to the Problem of Training Automatic Systems—L. P. Sysoev	1911	27

DISCRETE SYSTEMS

Theory of Necessary Conditions for Optimality for Discrete Systems—R. Gabasov and F. M. Kirillova	1921	39
Generalization of the Theory of Ya. Z. Tsypkin for Relay Automatic Control Systems —G. Jumarie	1929	48
Two-Dimensional z-Transform and the Possibilities of its Use in the Statistical Dynamics of Discrete Automatic Systems. II—V. G. Gusev	1938	58

ADAPTIVE SYSTEMS

Adjustment Processes in Scanning Gradient Digital Adaptive Systems—P. F. Klubnikin	1948	68
Adaptive System with Model and Combined Adjustment—V. D. Gromyko and E. A. Sankovskii	1959	80

LARGE-SCALE SYSTEMS

Analysis and Optimization of Networks of Operations Taking into Account Resources Transfers —V. N. Burkov and G. E. Moliseenko	1965	86
Optimal Planning of Parts' Machining on a Number of Machines—E. V. Levner	1972	94

AUTOMATA

Clock-Transformation Problem in Automata—L. A. Gusev	1979	101
--	------	-----

AUTOMATIC CONTROL IN BIOLOGICAL SYSTEMS

Connection between Joint Tremor and the Joint Angle Control Process—E. A. Andreeva, Kh. A. Turakhanov, O. E. Khutorskaya, and V. I. Chernov	1988	111
--	------	-----

COMPUTING TECHNIQUES IN AUTOMATIC CONTROL

Fault Localization in Computer Systems with Element-by-Element Redundancy by Channel Switching—L. N. Flalko	1994	118
--	------	-----

MODELS OF CONTROLLED PLANTS

Classification of Dynamic Models of Chemical-Technological Process Control Plants. IV —E. K. Shigin	2001	127
--	------	-----

(Contd)

Available From Consultants Bureau

CONTENTS

(continued)

Engl./Russ.

AVTOMATIKA I TELEMEXHANIKA

No 12, 1969

INDUSTRIAL APPLICATIONS OF AUTOMATION

Operator Networks for Realizing Discrete Control Systems of Industrial Processes

- S. A. Yuditski 2011 138

TECHNICAL NOTES

Determination of the Statistical Characteristics of Auto-Oscillations in Systems with Random Parameters—Yu. M. Astapov and Yu. I. Zalozhnev

2022 151

Dual Control for Processes of Random Duration—E. P. Maslov and V. K. Ol'shanski

2025 154

Tracking Process in Single-Channel Extremal Systems of the Self-Oscillating Type

- N. N. Leonov 2028 156

LETTERS TO THE EDITOR

Boundary Conditions for the Solution of the Fokker-Planck Equation in Tracking

Failure Problems of Nonlinear Systems—V. S. Zaritski and A. A. Sveshnikov 2032 160

Tracking Failure Problem (An Answer to the Letter of V. S. Zaritski and A. A. Sveshnikov)

- G. V. Obrezkov and V. D. Razevig 2035 161

Concerning B. I. Shakhtarin's Paper, "Statistical Dynamics of a Phase Lock Loop

With a Proportional-Integrating Filter" [1]—V. V. Shakhgil'dyan 2038 164

Response to V. V. Shakhgil'dyan's Letter—B. I. Shakhtarin

2040 165

CONFERENCES, MEETINGS, AND SYMPOSIA

Fourth International Congress of the International Federation of Automatic Control (IFAC)

- I. N. Vasil'ev 2044 168

Fifth All-Union Conference on the Theory, Technology, and Application of Contacts

and Contact Materials—I. E. Dekabrun and M. I. Tishkevich 2047 170

INDEX

Author Index, Numbers 1-12, 1969 2053

Tables of Contents, Numbers 1-12, 1969 2057

The Russian press date (podpisano k pechat) of this issue was 12/8/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

SOVIET AUTOMATIC CONTROL

— Ukrainian Journal of Automation

AVTOMATYKA

1969

NUMBER 5

CONTENTS

	Page
DYNAMIC SYSTEMS	
A. M. Voronin and A. I. Sbitnyev: Switching Dynamics in Control Systems	1
B. O. Ryabov and G. P. Sachkov: Sensitivity of Accumulated Disturbances in Linear Systems . . .	6
EXTREMAL, OPTIMAL, ADAPTIVE, AND SELF-ADJUSTING SYSTEMS	
L. A. Rastrygin: Correction During Unifrequency Search	13
INFORMATION AND INTERPOLATION SYSTEMS	
V. H. Zaytsev: Approximation Algorithms for the Recognition of Spoken Words	18
Yu. K. Pekshurov: A Method for Prediction of Random Processes	22
M. P. Petrov: Solving Identification Problems on Analog Simulators.	28
V. M. Timontyeyev, V. F. Lysytsya, and Yu. M. Kalnibolots'kyy: A Method of Topological Analysis of Electronic Circuits.	34
INTEGRATED AUTOMATION AND THE USE OF COMPUTERS	
L. A. Zhuk, A. M. Luchuk, and V. H. Pshenychnyy: Electronic Switch Errors in Phased Signal Converters.	38
NEW AUTOMATION ELEMENTS AND DEVICES	
A. K. Klimov: A Galvanomagnetic Analog Multiplier	44
G. V. Tsepkov: Use of Dekatron Switches in Electronic Devices.	48
BRIEF NOTES	
O. V. Babak, Ya. F. Bihun, and B. V. Bólotov: Control-Core Dimensions for a Magnetic Analog Control and Storage Device	54
A. G. Ivakhnenko: The Group Method of Data Handling in Optimal Control with Accumulation of Information	57
T. V. Kasatova and N. A. Kachanova: Steady-State Operation of Power Systems with Many Nodes and Branches Computed on the Ural-2 and Ural-4 Computers	61
V. M. Moroz: Description of Visual Images by Correlation Functions.	63
V. Yu. Reuts'kyy: Selection of Most Informative Frequency Bands in the Description of Visual Objects	66
L. H. Shatikhin: A New Method for Expanding a Determinant.	68
A. I. Yasulaytis: Digital Computer Simulation of Multidimensional Discrete Random Processes	71

Available From Scripta Electronica

SOVIET AUTOMATIC CONTROL

— Ukrainian Journal of Automation

AVTOMATYKA

1969

NUMBER 6

CONTENTS

	Page
DYNAMIC SYSTEMS	
O.M. Fomenko: Accounting for Disturbances in the Design of Regulators	1
EXTREMAL, OPTIMAL, ADAPTIVE, AND SELF-ADJUSTING SYSTEMS	
L.M. Boychuk: Structural Synthesis of a Class of Functional Regulators	7
A.I. Volevach, V.L. Volkovych and L.F. Darheyko: Use of Linear Programming in Air-Traffic Control	16
INFORMATION AND INTERPOLATION SYSTEMS	
L.L. Barvins'kyy and V.I. Savyts'kyy: Use of Generating Functions in Estimating Parameters of Air Traffic Control Systems	21
BIONICS AND HEURISTIC PROGRAMMING	
I.I. Dzegolenok: Heuristic Self-Organization of a Recognition System with Active Strategy Training	27
INTEGRATED AUTOMATION AND THE USE OF COMPUTERS	
D.B. Bayasanov and V.L. Shpakov: An Iterative Method for Calculating the Stationary Operation Modes of Complex Ringed Gas Systems	33
A.M. Vershinin, T.D. Kravets', H.S. Nesterov, V.I. Neskhodovs'kyy and N.V. Khrushchova: "Foreman's Adviser" System for Wet Magnetic Ore Dressing Process	36
B.M. Rakovs'kyy: Conditions for Independence of Blast Furnace Cross-Section Regulator Circuits	46
BRIEF NOTES	
R.V. Belyakov, V.M. Bytyukov and I.K. Malets'kyy: Operation of an Artificial Muscle-Type Generator Fed by Fresh and Sea Water	54
DISCUSSION	
Improving and Verifying the Algorithms of the Group Method of Data Handling	56
V.D. Dimitrov: Use of Genetic Theory for Selecting Partial Descriptions in the Group Method of Data Handling	57
Contents for 1969	64

Available From Scripta Electronica

CONTENTS

Molecular biophysics

- V. N. LYSTSOV and YU. SH. MOSHKOVSKII: Investigation of the cryolytic degradation of DNA — II. Hydrodynamic properties and polydispersability of cryolysates 411
- M. I. BELYAYEVA, N. V. SEDYKH and I. B. LESHCHINSKAYA: Effect of pH of medium on the dielectric properties and activity of deoxyribonucleases of *Bacillus amylozyma* and *Serratia marcescens* 419
- G. D. NISENBAUM, S. L. AKSENTSEV, and S. V. KONEV: Investigation of the conformational conversions of serum and egg albumins by the method of photochemiluminescence 425
- A. A. BERLIN and YE. A. PENSKEYA: Formation of cyclodextrins during cryolysis of solutions of starch and possible mechanism of cryolytic processes 430
- V. YE. KHOLMOGOROV, D. A. SAVEL'EV and A. N. SIDOROV: Photoconversions of the porphyrins in frozen solutions, phototransfer of electron in sulphuric acid solutions of etioporphyrin 437
- A. V. VANNIKOV and L. I. BOGUSLAVSKII: Direct determination of the mobility of electrons and holes in mitochondria 444
- T. YE. KRENDELEVA, V. S. KORSHUNOVA and A. B. RUBIN: Study of the kinetics of redox conversions of the cytochrome components in the electron transport chain of photosynthesis 450
- B. YA. DAIN, M. N. USACHEVA, M. S. ASHKINAZI and I. A. DOLIDZE: Photoreduced forms of chlorophyll and pheophytin 459
- I. M. BYTEVA and M. V. SARZHEVSKAYA: Quantum yield of the reaction of photoreduction of chlorophyll and related compounds 465

Cell biophysics

- O. N. BRZHEVSKAYA and O. S. NEDELINA: Investigation of the energy-dependent processes in metabolizing mitochondria by the EPR method 472
- YE. A. LIBERMAN and V. P. TOPALY: Permeability of bimolecular phospholipid membranes for fat-soluble ions 477
- V. S. MARKIN, V. F. PASTUSHENKO, L. I. KRISHTALIK, YE. A. LIBERMAN and V. P. TOPALY: Membrane potential and short circuit current in artificial phospholipid membranes in the presence of agents uncoupling oxidative phosphorylation 487
- B. I. KHODOROV and E. M. PEGANOV: Effect of calcium, magnesium, barium, nickel and lanthanum ions on the hyperpolarization responses of the single node of Ranvier 500
- V. L. DUNIN-BARKOVSKII, S. A. KOVALEV, L. G. MAGAZANIK, T. V. POTAPOVA and L. M. CHAILAKHYAN: Equilibrium potentials of the post synaptic membrane activated by various cholinomimetics with change in the extracellular ionic medium 512
- YU. M. BURMISTROV, R. G. LYUDKOVSKAYA and Zh. P. SHURANOVA: Electrical activity of the neurones of the crayfish on vital staining with methylene blue 524
- V. M. MITYUSHIN and I. YE. EL'PINER: Effect of ultrasound on the cells of Ehrlich ascites carcinoma 531
- B. I. POLIVODA: Temperature dependence of electrical conductivity of cell suspensions 536
- T. B. SUSLOVA, V. I. OLENEV and YU. A. VLADIMIROV: Chemiluminescence coupled with the formation of lipid peroxides in biological membranes — I. Luminescence of mitochondria on addition of Fe^{++} 540

Biophysics of complex systems. Mathematical models

- V. F. PASTUSHENKO and V. S. MARKIN: Propagation of excitation in a model of an inhomogeneous nerve fibre — II. Attenuation of pulse in the inhomogeneity 548
- V. B. GOLOVCHINSKII and K. YU. BOGDANOV: Mathematical model of the evoked response 552
- K. YU. BOGDANOV and V. B. GOLOVCHINSKII: Physical basis of recording the fast and slow electrical fluctuations in the cerebral cortex 562
- YE. M. MAKSIMOVA: Effect of intracellular polarization of horizontal cells on the activity of the ganglionic cells of the retina of fish 570
- YE. D. PETROVSKAYA, G. I. ROZHKOVA, V. S. TOKAREVA and V. S. ETKIN: Properties and receptive fields of the central neurones of the cercal auditory system of the cricket 578
- A. N. POBKROVSKII: Exclusion of the influence of scatter of threshold levels in determining the reciprocal correlation of the impulse activity of neurones 586

Available from Pergamon Press

(Contd.)

BIOFIZIKA
Vol 14, No 3, 1969

Letters to the Editor

S. KH. SADYKHOVA and I. YE. EL'PINER: Propagation of ultrasonic waves in aqueous solutions of peptides	590
A. G. CHETVERIKOV, D. N. KAFALIEVA and A. F. VANIN: EPR signals of free radicals in lyophilized and frozen plant specimens	593
YA. YE. DOSKOCH, A. P. YAKOVLEV and B. N. TARUSOV: Spontaneous ultraweak chemiluminescence of inbred lines and interline plant hybrids	596
I. G. MINKEVICH and D. S. CHERNAVSKII: Synchronization of cultures of microorganisms under mild periodic conditions	599
A. B. KOGAN, N. N. GLUSHKOV, I. V. POPOV and O. G. CHORAYAN: Analysis of certain statistical characteristics of neurones of the central section of the visual analyzer	601
G. G. DEMIRCHOGLYAN: Photo-e.m.f. of the retina <i>in vacuo</i>	606
Abstracts of manuscripts submitted	
A. M. VOROTILIN, V. G. MANZHELII, V. V. DANILINA and V. M. GASAN: Mechanism of damage to human erythrocytes in solutions of polyethylene oxides at low temperatures	610

Available from Pergamon Press

BIOCHEMISTRY

A translation of *Biokhimiya*

Volume 34, Number 5, Part 2

September-October, 1969

CONTENTS

	Engl./Russ.
Determination of Molecular Weights of Some Enzymatic and Nonenzymatic Proteins of Bacterial Membranes by Radiation Inactivation and Disc Electrophoresis Methods - D. N. Ostrovskii, I. M. Tsfasman, and N. S. Gel'man.....	803 993
Physicochemical and Functional Characteristics of DNA from Rat Liver Mitochondria of Different Types - T. B. Kazakova, M. M. Gachava, and K. A. Markosyan	809 1000
N- and C-Terminal Amino Acids of Human Ceruloplasmin - L. A. Konnova, I. M. Vasilets, and M. M. Shavlovskii	816 1008
Effect of Iodination on the Biological Activity of Anthrax Allergen - G. A. Maksimova and V. F. Runova	822 1015
Isolation of Highly Purified Cytoplasmic Ribosomes from Animal Cells - I. A. Chudinova, G. D. Krechetova, and V. S. Shapot.....	828 1021
Determination of Rhodopsin and Its Resynthesis in Retinal Homogenates - I. A. Ostapenko, A. L. Berman, and R. N. Étingov	833 1028
Mitochondrial Hexokinase of the Retina: Distribution, Activation, and Elution - R. N. Étingov, D. Bizol'd, P. Teikhgreber, and L. Myuller	838 1034
Structure of the N-Terminal Fragment of Pepsin. Fractionation of Chymotryptic Hydrolyzate - E. A. Vakhitova, I. B. Pugacheva, M. M. Amirkhanyan, and V. M. Stepanov	845 1042
Properties of Messenger RNAs of the Bovine Adenohypophysis - I. N. Todorov, A. A. Livshits, and I. F. Paskevich	850 1048
Tumor Lipids: Phospholipid Composition of Plasma Membranes of Zajdela's Ascites Hepatoma - S. Ya. Davydova, V. S. Shapot, É. V. Dyatlovitskaya, T. I. Torkhovskaya, and L. D. Bergel'son	858 1058
Effect of Some Organic Solvents on the Reactivity of Cholinesterase - A. P. Brestkin, E. B. Maizel', and E. V. Rozengart	861 1062
Isolation of Cathepsin D from Bovine Spleen - T. I. Mzhel'skaya and V. N. Orekhovich... ..	866 1068
Acylation of Two Isoacceptor Valine tRNA Fractions by One Valyl-RNA-Synthetase - O. O. Favorova, N. K. Sakharova, L. Ya. Kazarinova, and Ya. M. Varshavskii ..	871 1074
BRIEF COMMUNICATIONS	
Transport of Ions and Electric Potential of Mitochondrial Membranes - E. A. Liberman, V. P. Topaly, L. M. Tsofina, A. A. Yasaitis, and V. P. Skulachev	878 1083
Mechanism of Action of Inorganic Yeast Pyrophosphatase - S. M. Avaeva and A. T. Mevkh	883 1088
Improved Method of Lysozyme Separation via Enzyme-Substrate Chromatography - I. A. Cherkasov and N. A. Kravchenko.....	885 1089
CHRONICLES	
European Conference of Biochemists - B. P. Gottikh	887 1092

The Russian press date (podpisano k pechatl) of this issue was 9/8/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

BIOCHEMISTRY

A translation of *Biokhimiya*

Volume 34, Number 6, Part 1

November-December, 1969

CONTENTS

	Engl./Russ.
Vladimir Aleksandrovich Engel'gardt (On his Seventy-Fifth Birthday)	889 1099
Structure and Autoactivation Mechanism of Canine Prothrombin - V. N. Timerbaev, L. A. Belyaev, and D. M. Zubairov	891 1100
Isolation of 7S-Globulin from Cotton Seed and the Study of Its Amino Acid Composition - A. P. Ibragimov, Sh. Yunuskhonov, and A. V. Tulchikov	897 1107
Extracellular Ribonuclease of <i>Bacillus glutinosus</i> - I. B. Leshchinskaya and R. Sh. Bulgakova	902 1113
Separation of Middle-Asian Cobra Venom by Gel Filtration Through Sephadex and Determination of Biological Activity of the Fractions Obtained - Ya. Kh. Turakulov, D. N. Sakhibov, V. M. Sorokin, and L. Ya. Yukel'son . .	907 1119
Formation of the Free Insulin B-Chain in Pancreatic Tissue - M. A. Zaidenberg	911 1123
Properties of Extracellular Ribonuclease from <i>Aspergillus clavatus</i> - S. I. Bezborodova, L. I. Borodava, G. S. Ivanova, and V. G. Morozova . . .	916 1129
Chromatographic Separation of a Complex of Proteases from <i>Aspergillus flavus</i> - A. S. Tsyperevich and N. V. Lysenkov	922 1137
Chemical Composition of Diphtheria and Tetanus Antibodies Isolated from the Same Antidiphtheria - Antitetanus Horse Serum - I. I. Raikher, L. I. Koidan, and N. M. Protserova	928 1144
Change in the Molecular Structure of DNA under the Influence of a Teratogenic Agent - T. B. Kazakova and N. A. Chebotar'	934 1151
Interaction of Newcastle Disease Virus with Chick Embryo Ribosomes - V. M. Zhdanov and L. Foster	940 1158
Effect of Puromycin on Cytotoxic Activity of Immune Lymphocytes in Vitro - B. D. Brondz and E. V. Sidorova	948 1168
Kinetic Parameters of Hydrolysis of Indophenyl Esters by Cholinesterase - I. N. Soboleva, V. A. Samokish, and E. V. Rozengart	952 1173
Proteolytic Activity in Preparations of Purified Immunoglobulin G and Rabbit Antibodies - A. Ya. Kul'berg, Yu. V. Docheva, I. A. Tarkhanova, and V. A. Spivak	956 1178
Reversible Gelatinization of Sarcoplasmic Proteins and the Relationship of this Phenomenon to the Mechanism of the Development of Plastic Tonus - I. I. Ivanov, L. M. Belyavtseva, E. P. Ivantseva, and I. M. Matveeva	961 1184
Influence of Chronic Moniodoacetate Poisoning on α -Glycerophosphate Metabolism in Animal Tissues - I. V. Sidorenkov and F. N. Gil'miyarova	967 1192
Isolation of a Fat-Mobilizing Peptide from the Products of High Hydrolysis of Bovine Somatotrophic Hormone with Pepsin - Yu. M. Keda, F. Yu. Ryshka, and A. L. Sinitsyna	971 1196
Nucleotide Composition and Incidence of Pyrimidine Blocks in the DNA of Certain Invertebrates - A. M. Masin, B. F. Vanyushin, and G. E. Sulimova	976 1202 (Contd)

Available From Consultants Bureau

	Engl./Russ.
RNA Biosynthesis and Transformation in the Spleen during the Inductive Phase of Immunogenesis - B. D. Stanchev.	982 1209
Isolation and Crystallization of Enzymes Connected with the Bioluminescence of Marine Bacteria - S. N. Borkhsenius, V. V. Fomina, T. I. Vinokurova, and A. N. Domanski.	988 1216

The Russian press date (podpisano k pechati) of this issue was 11/21/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 67, Number 1

January, 1969

CONTENTS

	Engl./Russ.
PHYSIOLOGY	
Effect of Adrenalin on Ability of Intact Erythrocytes to Increase Plasma Thromboplastin Activity—I. Ya. Ashkinazi	1 3
Analysis of Neurochemical Mechanisms of Cortical Activation during Responses to Pain—K. V. Sudakov and G. K. Kadyrov	3 5
Myoglobin Content in Skeletal and Heart Muscles of Dogs at Different Age Periods—B. S. Musin	8 10
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY	
Changes in Arterial Pressure and Cardiac Output after Constriction of the Abdominal Aorta—M. V. Kon	10 13
Basic Features of the Microcirculation in Traumatic Shock as Revealed by Intravital Microscopy of the Rat Mesoappendix—O. P. Khrabrova	13 16
Effect of Interference with the Neurohumoral Regulation of Homeostasis on the Course of Protracted Collapse in Young Animals—A. B. Elantsev	17 20
Effect of Preliminary Castration on Synthesis of Proteins, RNA, and Phospholipids in the Myocardium during Compensatory Cardiac Hyperfunction—Yu. G. Shmakov	20 23
Secretory Activity of the Hypothalamus—Pituitary—Adrenal System in Hypothermia—B. A. Saakov, S. A. Eremina, and É. S. Gul'yants	22 25
Changes in Binding Capacity of Corticosteroid-Binding Plasma Globulin in Acute Radiation Sickness—B. B. Moroz and N. N. Pantyushina	26 28
Effect of Inflammation in Late Periods after Irradiation on the Serum Protein Composition—V. B. Klimovich	28 30
Changes in the Bile-Forming Function of the Liver in Albino Rats after Castration—G. K. Skakun	31 33
BIOCHEMISTRY AND BIOPHYSICS	
Effect of Sodium Hydroxybutyrate on Lactate and Pyruvate Concentrations in Anoxia—R. U. Ostrovskaya, V. Yu. Ostrovskii, and E. L. Geselevich	33 36
Formation of a New Vitamin A Metabolite in Rats—V. A. Lyul'eva	35 38
Content of Nonesterified Fatty Acids in Blood Serum and Adipose Tissue of Castrated Rats during Electrical Stimulation—N. G. Nikul'cheva	38 41
Effect of a Growth-Inhibiting Diet on Connective Tissue of the Skin in Albino Rats of Different Ages—Yu. A. Moroz	40 43
PHARMACOLOGY	
Action of Neuroleptics (Chlorpromazine, Stelazine, and Haloperidol) on Single Unit Activity—É. S. Tolmasskaya and T. S. Mel'nikova	43 46
Pharmacological Analysis of the Mechanism of Myoclonic Convulsions in Rats—Z. A. Zorina and D. A. Fless	45 48
Available from Consultants Bureau	(Contd)

MICROBIOLOGY AND IMMUNOLOGY

Nature of the Intracellular Inclusions of Parotitis Virus—M. N. Nasibov and A. A. Smorodintsev	48	51
Effect of Herpes Simplex Virus (Strain L2 _{Ks}) and Its Mutants on Mitotic Activity of Cell Cultures—A. B. Germanov and V. N. Blyumkin	51	54
Development of Natural Immunity in Progeny of Dogs with a Normal Course of Pregnancy —V. I. Ermolov	54	57
Role of Monoamine Oxidase Inhibition in Formation of Hypersensitivity of Delayed Type —L. V. Devoyno, L. S. Korovina, and V. A. Maslakova	56	58

ONCOLOGY

Preventive Immunization and Immunotherapy of Ehrlich's Carcinoma and Crocker's Sarcoma in Mice—D. G. Zatula	59	62
Role of Disturbances of Endocrine Equilibrium in Induction of Brain Tumors with Methylnitrosourea—V. A. Enish, R. Vartsok, and D. Schreiber	61	64
Effect of Single and Fractional Irradiation on Normal and Tumor Tissues with Similar Mitotic Activity—I. V. Shiffer	63	66

EXPERIMENTAL BIOLOGY

Stimulation of Growth of Limb Bones of Mouse Embryos of Mutant Line Brachypodism—H by Somatotrophic Hormone—B. V. Konyukhov and N. A. Malinina	66	70
Reaction of Thymectomized Rats to Skin Homografts—A. V. Abuladze	68	72
Mitotic Cycle of Circulating Leukocytes of the Monkey <u>Macaca mulatta</u> —Z. A. Dzhemilev and Yu. A. Mitrofanov	71	74
Circadian Rhythm of Mitotic Division of Kidney Cells in Rats of Different Sexes —L. M. Farutina and R. I. Eogatova	75	78
Effect of Freezing the Skin on Formation of Multinuclear Cells in Its Epithelium —V. V. Kadakas	77	80

MORPHOLOGY AND PATHOMORPHOLOGY

Encapsulated Receptors of Arteries of the Medulla and Spinal Cord—P. A. Motavkin and B. T. Tikhvinskaya	80	84
Polyploid Cells in Hematopoietic Tissue of Man and Animals—I. L. Gol'dman, D. S. Dobriyanov, and V. I. Budyakov	83	87
Effect of Water Deprivation and Prolonged Overheating on Distribution of Acid Mucopolysaccharides in the Renal Medulla of Albino Rats—T. L. Dubynin	87	91

METHODS

Comparison of Global and Local Electromyography—V. P. Novikova	90	95
Variant of the Method of Integral Microphotometric Measurement of Objects —Yu. E. Morozov, A. P. Chernov, and V. V. Rogozhin	93	97
Flocculation Analysis of Distribution of Growth Hormone among Fractions of a Rabbit Extract of Human Pituitaries—A. F. Lazarev	95	99

Available from Consultants Bureau

The Russian press date (podpisano k pechatu) of this issue was 12/17/1968.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 67, Number 2

February, 1969

CONTENTS

	Engl./Russ.
PHYSIOLOGY	
Force and Velocity of Contraction of the Ventricular Myocardium - S. A. Radzievskii and V. I. Kapel'ko	99 3
Tacho-Oscillographic Investigation of Arterial Pressure in the Right and Left Brachial Arteries in Different Positions of the Body and during Physical Work - V. V. Vasil'eva and N. A. Stepochkina	102 6
Effect of Stimulation of the Sensorimotor Cortex on Unit Activity in Bulbar Pressor Structures - A. M. Blinova and N. K. Saradzhev	104 7
Reticulospinal and Vestibulospinal Synaptic Influences in Kittens - D. N. Lenkov and A. I. Shapovalov	109 12
Dorsal Root Potentials of the Spinal Cord in Rats with Convulsions due to Ascending Tetanus - G. N. Kryzhanovskii and V. K. Lutsenko	113 16
Effect of Placentin-3, a New Preparation from Human Placental Tissue, on the Blood Clotting System - V. V. Litvinov	116 19
Effect of Some Nonspecific Hyaluronidase Inhibitors on Spontaneous Bile Formation - N. A. Brodyagin and G. E. Saburov	118 21
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY	
Role of Local Blocking of Ectopic Excitation in the Myocardium in the Prevention of Cardiac Arrhythmias - A. M. Ovsyannikov, A. E. Savastenko, and V. A. Frolov	120 24
Changes in the Cardiovascular System of Rabbits in Diabetes and following Administration of Hormones - L. E. Panin	124 28
Effect of Experimental Myocardial Infarction on Bile Formation by the Liver - E. M. Neiko and M. G. Shevchuk	127 31
Changes in Optical Density of Mitochondria in the Gastric Mucosa and Liver in Neurogenic Degeneration - I. S. Zavodskaya, E. V. Moreva, and V. V. Bul'on	129 33
Resorptive and Digestive Functions of the Intestine in Dogs Exposed to High Temperatures and Insolation - K. Rakhimov	131 35
Intravital Determination of Ditizon in the Islets of Langerhans of Healthy Rabbits and Rabbits with Diabetes - V. A. Eshchenko and D. M. Boguslavskaya	133 37
Functional State of Posterior Hypothalamic Structures of Rabbits with Experimental Tuberculosis - G. R. Broun	136 40
Inactivation of Antibacterial Preparations and Drug Resistance of Pathogenic Agents - N. M. Rudoi and A. S. Libenson	139 43
BIOCHEMISTRY AND BIOPHYSICS	
Content of N-Acetyl-L-Aspartic Acid in Brain Tissue after Head Injuries - M. Sh. Promyslov and Ya. M. Sokovnina	142 46
Effect of Tryptophan, Serotonin, Kynurenin, Corticosteroids, and Peroxidase on Activity of Tryptophan-Pyrrolase, 5-Hydroxytryptophan Decarboxylase, and Catalase in the Rat Liver - V. K. Rudzit	144 48

(Contd)

Available from Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 67, No 2, 1969

	Engl./Russ.	
Deamination of AMP and Adenosine and Dephosphorylation of AMP in Subcellular Structures of the Myocardium in Experimental Aortic Stenosis - Z. Yu. Nechiporenko and E. G. Goncharenko	146	50
Content of Phosphorus Compounds in Tissues of the Right and Left Ventricles of Dogs after Vagotomy - G. V. Chernysheva and L. V. Stolda.	149	53
Protein Composition and Immunogenic Properties of Milk from Dogs at Different Periods of Lactation - V. I. Ermolov	152	56
Action of Radiation of Ruby and Neodymium Lasers on Nonpigmented Cells in Tissue Culture - N. F. Gamaleya and O. F. Pasechnik.	154	58
PHARMACOLOGY		
Similarity between D-Serotonin Receptors and α -Adrenergic Receptors - I. I. Abramets ..	158	63
Effect of Some Phenothiazine Derivatives on the Regional Circulation of the Kidney - A. I. Nikitin	161	66
Effect of Fluoroacetate on Kidney Function in Dogs - G. D. Anikin	165	69
Action of Reserpine on Antibody Formation in Hypophysectomized Animals - L. V. Devoino, O. F. Eremina, and R. Yu. Il'yuchenok.	168	72
MICROBIOLOGY AND IMMUNOLOGY		
Action of DL-19-nor-D-homotestosterone on the Interferon System and on Synthesis of Total Cell Protein in Tissue Culture - N. A. Zeitlenok, V. M. Roikhel', and E. A. Gorbachkova.	171	76
Synchronization of DNA Synthesis in Spleen Cells Following a Second Antigenic Stimulation - V. P. Gusev	174	79
Restriction of Propagation of <i>Escherichia coli</i> O ₁₁₁ Phage by Enteropathogenic Intestinal Bacteria - L. M. Aleksin and L. B. Borisov	177	82
Induction of Colicin Synthesis in <i>Escherichia coli</i> by X-Ray Irradiation - V. A. Gumenyuk. .	180	85
ONCOLOGY		
Changes in Concentration of Thiol Groups in the Prophase of Mitosis of Normal and Tumor Cells - I. A. Alov, M. E. Aspiz, L. P. Zuseva, and I. V. Uryvaeva.	182	88
Electrophoretic Analysis of Rat Serum Proteins in the Early Stages of Experimental Carcinogenesis - L. L. Khundanova	185	91
Dynamics of the Ammonia-Glutamine System of the Brain in Rats after Surgical Removal or Chemotherapy of Tumors - A. V. Arkhangel'skaya	187	94
EXPERIMENTAL BIOLOGY		
Principles Governing Healing of Extensive Skin Defects in Rabbits - E. A. Efimov.	190	97
Circadian Rhythm of Mitosis in Certain Organs of 10-Week Human Fetuses - E. N. Abrin (Abramson)	193	100
Circadian Rhythm of Mitosis and Mitotic Activity of Epithelium of the Convoluted Tubules of the Kidney at High Altitudes - F. Kh. Sharipov.	195	102
Effect of Thyroid and Methylthiouracil on Basal Metabolism and Morphology of the Thyroid Gland in C3H and C57BL Mice - M. E. Skatkov and N. I. Tikhaya	197	104
EXPERIMENTAL GENETICS		
Cytogenetic Action of 3-Hydroxykynurenin and 3-Hydroxyanthranilic Acid on Human Cells in Embryonic Tissue Culture - L. E. Kuznetsova	200	107
MORPHOLOGY AND PATHOMORPHOLOGY		
Ultrastructural Characteristics of the Capillary Wall in Disturbances of Its Barrier Function - O. V. Alekseev and A. M. Chernukh.	203	110
Submicroscopic Changes in Cells of the Renal Tubules due to Hyperthermia - O. S. Balaeva	207	114
Regression of Experimental Atherosclerosis of the Aorta in Guinea Pigs - E. M. Tararak .	211	118
Transformation of Alveolar Epithelium during Embryogenesis and in Various Age Periods of Postfetal Life in Rats - N. I. Grebenskaya.	214	121

(Contd.)

Available from Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 67, No 2, 1969

Engl./Russ.

METHODS

A Method of Cultivating Tissues in Vivo in Diffusion Chambers - G. V. Alekseeva and

V. M. Yunker. 217 124

Available from Consultants Bureau

The Russian press date (podpisano k pechatu) of this issue was 1/16/1969.

Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 67, Number 3

March, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

Interaction between Interzonal and Afferent Impulses in the Somatosensory Cortex -A. G. Rabin.	219	3
Reaction of Smooth Muscles of Subcutaneous Blood Vessels to pH Changes -A. A. Kokarev.	223	7
Reflex Changes in Activity of the Urethral Sphincter during Adequate Stimulation of Receptors of the Pudendal Nerves-V. A. Kuz'menko	226	9
Role of the Parasympathetic Nerves in Regulation of Periodic Secretion of Saliva in Dogs-V. D. Sukhodolo.	229	13
Role of the Kidneys in Erythropoietin Production-V. I. Voitkevich and O. I. Moiseeva.	232	16

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Electromyographic Investigations of Respiration in Dogs with a Replanted Lung -A. M. Kulik, Yu. Ya. Rabinovich, and Yu. V. Kiprenskii	235	19
Importance of Magnesium in Prevention of Metabolic Disorders in the Myocardium in Thyrotoxicosis-L. M. Gol'ber, K. A. Anan'eva, V. I. Kandror, I. V. Kryukova, and A. V. Negovskaya	239	23
Role of Afferent Influences in Hemodynamic Changes after Compression of the Abdominal Aorta-M. V. Kon.	242	26
Regional Distribution of the Pulmonary Blood Flow during Apneic Oxygenation and Alveolar Anoxia-A. P. Zil'ber.	245	29
Unequal Cooling and Warming of Tissues during Hypothermic Perfusion -I. Yu. Vinokurova.	248	32
Effect of the Chelating Agent Na ₂ MgEDTA on Collagen Formation and Some Aspects of Lipid Metabolism in Experimental Silicosis-L. G. Babushkina and B. A. Katsnel'son.	251	35
Effect of Adrenalectomy in Pregnant Rats on Pituitary-Adrenal Function of Their Progeny in the First Days of Postnatal Life-M. I. Kandror.	254	37
Prevention of Dithizone Diabetes by Compounds Containing Sulfhydryl Groups -Ya. A. Lazaris and Z. E. Bavel'skii	257	40

BIOCHEMISTRY AND BIOPHYSICS

Biochemical and Electron-Microscopic Characteristics of Different Types of Cardiac Mitochondria-L. A. Kopteva and V. I. Biryuzova.	260	43
Dynamics of Nucleic Acid Content in the Liver during Lethal Blood Loss Associated with Prolonged Hypotension and during Recovery from Clinical Death -V. L. Koshura.	264	48 (Contd)

Available from Consultants Bureau

Content of ATP, ADP, and Inorganic Phosphorus in Blood Plasma of Rats with Primary and Secondary Vitamin K Deficiency—L. M. Bronshtein, T. S. Barkagan, and I. I. Matusis	267	48
Phospholipid Metabolism in the Brain and Liver of Rats Poisoned with Organophosphorus Compounds—V. Ya. Dvorkin and A. P. Tofilo	269	50
Magnesium Metabolism in Various Models of Experimental Rickets—L. B. Vaganova ..	271	52
Effect of Halascorbin on Oxidative Phosphorylation in Brain Mitochondria of Irradiated Animals—E. F. Shamrai and L. Yu. Polyachenko	273	54
PHARMACOLOGY		
Effect of 6-Mercaptopurine on Secretory Function of the Kidneys—G. F. Fomenko. . .	276	58
Effect of Perirenal Procaine Block on Zinc Content in the Pancreas, Histophysiology of Its Insular Apparatus, and Sensitivity of Albino Rats to Insulin—L. I. Sandulyak	278	60
MICROBIOLOGY AND IMMUNOLOGY		
Participation of Phagocytic Factors in Natural and Acquired Immunity against the Agent of Meningopneumonia in Mice—A. A. Kyazimova, G. I. Il'in, and A. A. Smorodintsev.	281	64
Behavior of Rate Sera in the Gel-Precipitation Reaction during Regenerative Processes—M. S. Lomakin, A. G. Babaeva, and E. V. Sokolova.	284	67
Detection of Antibody-Forming Cells in the Turtle Spleen by a Modified Method of Local Hemolysis in Gel—L. F. Kassim and L. A. Pevnitskii	287	70
Immunologic Assessment of a Model of Experimental Berylliosis—E. V. Vasil'eva ...	291	74
EXPERIMENTAL BIOLOGY		
Divergent Differentiation of Skeletogenic Tissues in Implants—G. S. Solov'ev	294	78
Nucleo-Cytoplasmic and Nucleolo-Nuclear Ratios in Acinar Cells of the Regenerating Pancreas—G. G. Samsonidze	297	81
Regeneration of the Pancreas in Some Mammals—K. A. Zufarov and N. D. Aseeva ...	300	84
Effect of Stimulation of the Gonads on Thyroid Regeneration—E. V. Miroshnichenko ..	303	87
Immunomorphological Study of Induced Rejection of a Skin Autograft—V. V. Serov, R. P. Ogurtsov, and Yu. N. Zubzhitskii	306	90
Organ Cultures of Embryonic Liver Synthesizing Serum Proteins—E. A. Luriya, R. D. Bakirov, G. I. Abelev, and A. Ya. Fridenshtein	310	95
Mitotic Behavior of Transplantable Cell Cultures of Line CA-SV-40-63-1—M. E. Aspiz, V. I. Gavrilov, V. N. Blyumkin, and I. A. Alov.	313	99
MORPHOLOGY AND PATHOMORPHOLOGY		
Relationship Between Cellular and Intracellular Forms of Reparative Regeneration in the Degenerating Liver—D. S. Sarkisov, L. D. Krymskii, and K. V. Botsmanov.	316	103
Effect of Direct Electrical Stimulation on Synapse Ultrastructure in the Cerebral Cortex—A. L. Mikeladze	319	106
Histochemical Estimation of Zinc in the Pancreatic Islets of Langerhans in Healthy and Diabetic Rabbits—V. A. Eshchenko	322	110
Effect of Radioactive Neohydrin Labeled with Hg ²⁰³ and Hg ¹⁹⁷ on the Kidneys and Liver—I. I. Zolotarev, É. V. Rabina, and A. G. Kim	325	112
Oxido-Reductases in the Tissues in an Experimental Iron-Deficiency State—V. N. Petrov and V. I. Kalinin	328	115
METHODS		
A New Method of Obtaining Hystero-graphs by the Use of the High-Frequency Rheograph—G. A. Shminke and V. N. Kuznetsov.	330	118
Preparation of a Highly Purified Horse Antiserum against Human Growth Hormone—A. F. Lazarev	332	120

(Contd)

Available from Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 67, No 3, 1969

Engl./Russ.

The Use of Orbital Plethysmography to Study the Regional Cerebral Circulation
in Healthy Persons—O. A. Proskurina

336 123

Available from Consultants Bureau

The Russian press date (podpisano k pechatu) of this issue was 2/17/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 67, Number 4

April, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

Electrophysiological Investigation of the Effects of Chemical Substances in the Urine on Renal Receptors - Yu. L. Pines	339	3
Respiratory Activity and Proprioceptive Reflexes of the Abdominal Muscles of Cats during Ontogenesis - A. A. Filaretov.	344	7
Use of the Adrenalin Test to Assess Sympathico-Adrenal Function - G. N. Kassil', Ts. G. Gugutishvili, A. S. Zutler, D. V. Kolesov, and É. Sh. Matlina	348	11

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Content of Catecholamines in the Organs and Tissues of Albino Rats during Blood Transfusion Reactions - R. M. Glants and A. N. Yakovenko	352	15
Chief Features of the Microcirculation in the Liver in Traumatic Shock - S. A. Seleznev.	355	17
Analysis of the Conditions Determining Penetration of Proteins through the Placental Barrier - M. G. Nemets and N. N. Khechinashvili	359	21
Ciliary Activity of the Mucous Membrane of the Trachea and Bronchi after Experimental Burns - V. N. Khrebtovich.	362	24
Thermoregulation in Albino Mice in a Helium-Oxygen Medium at Low Positive Environmental Temperatures - A. B. Zimin and S. V. Runkov	364	26
Effect of Prolonged Absence of Bile from the Intestine on Vitamin B ₁₂ Metabolism and the State of the Blood System - V. S. Lavrova.	367	29
Analysis of the Composition of the Wave of the Dorsal Surface Potential of the Spinal Cord in Rats with Ascending Tetanus and a Paroxysmal Syndrome - G. N. Kryzhanovskii and V. K. Lutsenko.	371	33
Order of Disappearance of Various Types of Postsynaptic Inhibition in Experimental Tetanus - S. N. Kozhechkin	376	38

BIOCHEMISTRY AND BIOPHYSICS

Effect of Adenosinediphosphate on Intensity of Respiration of Mitochondria in the Rabbit Brain during Postnatal Ontogenesis - A. S. Kamysheva	380	43
Mechanism of the Reduction in DNA Content in Sperm Cells Preserved in Vitro - I. I. Ivanov, N. V. Korban, and V. I. Sharobaiko	383	46
Acetylcholinesterase Activity of the Sarcoplasmic Reticulum under Normal Conditions and in Experimental Local Tetanus - T. Yu. Lipskaya	386	49
Effect of Bacterial Endotoxins on Oxidative Phosphorylation in the Liver - L. I. Niselovskaya and L. P. Kopytovskaya	388	51
Intensity of Glycogen Renewal in the Myocardium of Rabbits with Alloxan Diabetes - L. N. Dagaeva	391	54

(Contd)

Available from Consultants Bureau

PHARMACOLOGY

Sensitization of Cholinergic Receptors of Striped Muscle to Acetylcholine - V. B. Prozorovskii	393	56
Investigation of the Spectrum of Antiarrhythmic Action of N-propyl-aimaline Bromide - É. I. Gendenshtein	397	60
Pharmacological Investigation of the Mechanism of the Radioprotective Effect of Catecholamines - V. I. Kulinski and I. B. Simon	400	63
Role of Cholinergic and Adrenergic Mechanisms in Regulation of Intestinal Absorption of Monosaccharides - I. A. Drzhetskaya and L. V. Mukhina	403	66
Combined Electrical Activity of Some Subcortical Structures in the Brain of Albino Rats at Various Stages of Sodium Fluoroacetate Poisoning - V. A. Artyushkova, M. V. Kirzon, and V. N. Timeiko	406	69

MICROBIOLOGY AND IMMUNOLOGY

Effect of Desoxyribonuclease on Colicin D Production by <i>Escherichia coli</i> Strain CA-23 (D) - V. A. Gumenyuk	410	74
Nucleic Acid Synthesis after Experimental BCG Vaccination as Shown by Histoau- toradiography - M. M. Averbakh, V. Ya. Gergert, and V. I. Litvinov	414	78
Development of the Serum Antigenic Spectrum of Lower Monkeys in Ontogenesis - G. A. Annenkov	417	82
Group Specificity of Amniotic Fluid in the Early Periods of Pregnancy - I. I. Klimets . . .	421	86
Natural Antitissue Precipitins of Mouse Serum as Possible Autoantibodies of a Special Type - V. S. Shevchenko	424	88

ONCOLOGY

Precancerous Changes in the Epithelium of the Cervix Uteri and Vagina of Mice after Intravaginal Insertion of Foam Plastic - N. I. Vol'fson	426	91
Effect of Conditions of Irradiation on Incidence and Rate of Development of Mammary Gland Tumors in Rats - Yu. I. Moskalev, I. K. Petrovich, and V. N. Strel'tsova	430	95
Experimental Study of the Antithyroid Action of Tumor Cell Metabolites in Vitro - V. I. Arkhipenko	434	99

EXPERIMENTAL BIOLOGY

Effect of Administration of Homologous RNA on Content and Renewal of Nucleic Acids in the Liver of Chick Embryos - A. B. Alekseev and V. A. Konyshov	436	101
Age Changes in the Mitotic Index in Various Organs of Albino Rats - Yu. A. Romanov, S. M. Kremli, and A. N. Blokhina	439	104
Nucleo-Cytoplasmic and Nucleolo-Nuclear Ratios in Islet Cells of the Regenerating Pancreas - G. G. Samsonidze	442	107

MORPHOLOGY AND PATHOMORPHOLOGY

Elements of Neuronal Organization and Cytoarchitectonics of Specific and Nonspecific Nuclei of the Cat Thalamus - Z. V. Eliseeva	445	110
Effect of Subcutaneous Exteriorization of the Kidney on the Hypothalamus - S. V. Ludentsova	448	114
Changes in Size of Rat Liver Cells and Their Nuclei during Pregnancy - I. I. Orlova	451	117

METHODS

Method of Distinguishing Electroencephalographic Responses to Different Types of Mental Activity - A. A. Genkin	454	120
An Extraction-Photometric Method of Microdetermination of Iodine in Fluids and Tissues after Administration of Iodine-Containing Compounds to Man and Animals - L. N. Lapin and N. V. Reis	459	124

Available from Consultants Bureau

The Russian press date (podpisano k pechati) of this issue was 3/21/69.

Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 67, Number 5

May, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

Physiological Effect of Electrocoagulation of Magnocellular Neurons of the Hypothalamus - E. M. Parshkov and O. V. Molotkov	463	3
Summation Properties of the Spinal Vasomotor Reflex Arc - R. S. Sonina	467	7
Effect of Ovarian Hormones on Receptors of the Pregnant Uterus - E. F. Kryzhanovskaya-Kaplun	470	10

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Mast Cells of the Myocardium during Disturbances of the Coronary Circulation - É. G. Bykov	473	14
Response of Animals to Thrombin after Prolonged Exposure to Acoustic Stimulation - A. Sh. Byshevskii and L. V. Mikhailova	475	16
Effect of Denervation of the Carotid Sinuses on Tissue Respiration of the Kidney, Spleen, and Bone Marrow - A. G. Gizatullin	477	19
Reaction of the Intracerebral Vaso-Capillary Network of Rabbits to Closed Head Injury in Ontogenesis - E. N. Kosmarskaya, N. G. Palenova, and L. D. Katosova	480	21
Effect of Prolonged Nociceptive Stimulation on Secretion and Electrical Activity of the Dog's Stomach - A. P. Grechishkina	483	24
Secretory and Structural Disturbances in the Gastric Mucosa after Adrenalectomy - S. M. Lipovskii	485	25
Effect of Injection of Homologous Tissue Suspensions on Mortality of Irradiated Mice - N. N. Klemparskaya and V. V. Shikhodyrov	488	27
Penetration of Microorganisms from the Blood Stream into the Urine through the Intact Kidneys - V. S. Ryabinskii and V. E. Rodoman	490	30
Proteins of Cardiac and Skeletal Muscles in Experimental Myocardial Infarction - T. V. Fetisova	493	33
Content of Serum Proteins and Nucleic Acids in the Liver of Rabbits with Toxic Hepatitis and Cirrhosis - G. S. Yakobson, O. A. Gromova, T. A. Korolenko, I. S. Proskuryakova, and G. N. Shorina	496	36
Effect of the Zeta-Potential on Intravascular Blood Clotting - A. A. Markosyan and A. K. Chepurov	499	39

MICROBIOLOGY AND IMMUNOLOGY

Distribution of ABO Blood Group Antigens in Subcellular Fractions of Human Tissues and Cells in Culture - Yu. V. Zykov, V. T. Timofeev, G. P. Tribulev, and Yu. T. Aleksanyan	502	43
Detection of Lenticular Antigens in the Early Stages of Development of <i>Rana temporaria</i> - S. S. Kirson, R. F. Averkina, and O. E. Vyasov	506	46

(Contd)

Available from Consultants Bureau

	Engl./Russ.
Antibodies against DNA in Myasthenia – D. B. Saprygin, B. M. Gekht, M. A. Kolomenskaya, L. B. Perel'man, and A. M. Poverennyi	509 50
ONCOLOGY	
Study of Tissue Antigens of CC57BR Mice with Leukemia (Reticulo-sarcomatosis) in the Gel Diffusion Reaction – B. É. Chechik and V. M. Bergol'ts.	512 53
Investigation of Erythrocyte RNA in Leukemia – M. B. Svetsitskaya and O. D. Ramonova-Tskhovrebova	515 56
Biochemical and Histochemical Study of Lactate Dehydrogenase Activity in Ovaries of Mice with High and Low Incidence of Spontaneous Cancer – V. I. Boikova and I. S. Zaretskaya	517 58
Histological Changes in the Ovary after Local Irradiation – A. V. Gubareva	520 61
Effect of Corticosteroids and X-ray Irradiation on Growth of Transplantable Harding-Passy Melanoma – V. L. Grigor'yan	523 64
Effect of Sex of the Host on Sex Chromatin of Tumors – V. Ya. Shats, Sh. I. Mardakhiashvili, and V. N. Anisimov	526 66
Detection of Antibodies in Chemical Carcinogenesis – L. L. Khundanova	529 69
EXPERIMENTAL BIOLOGY	
Organ Cultures of the Liver of Adult Mice Poisoned with CCl ₄ – R. D. Bakirov, T. A. Eliseeva, A. Ya. Fridenshtein, and G. I. Abelev	531 72
In Vitro Cultivation of Pathologically Changed Human and Rabbit Liver Tissue – Yu. E. Blok and A. S. Loginov	534 76
Overcoming Tissue Incompatibility in Rats during Skin Homografting – V. V. Chirkin	537 80
Repeated Posttraumatic Regeneration of Bone Tissue in Thymectomized Rats – V. I. Averchenko and B. E. Movshev	540 83
Effect of Exogenous RNA and Ultrasound on Fracture Healing in Rats – A. M. Belous, E. Ya. Pankov, V. A. Gusakova, N. F. Savenko, and O. P. Timoshenko	542 86
Regeneration of the Liver in Larvae of Triturus cristatus – A. B. Denisov	545 88
Action of Thyroxine on Cell Division in Vivo – Yu. A. Romanov, B. S. Kasavina, V. I. Prilutskii, A. N. Blokhina, V. P. Rybakov, and N. M. Suvorova	548 91
MORPHOLOGY AND PATHOMORPHOLOGY	
Sensory Structures of the Pars Intermedia of the Pituitary – A. A. Voitkevich and É. L. Soboleva	550 94
Morphological and Histochemical Changes in Hypothalamic Neurosecretory Nuclei, Neurohypophysis, and Cardiovascular System in Experimental Atherosclerosis – L. N. Lebedeva and L. M. Chuvil'skaya	553 98
Neurohistological Investigation of Homografted Limbs in Tolerant Dogs – O. N. Timofeeva and A. G. Lapchinskii	557 102
State of Nerve Cells of the Prostatic Plexus after Castration – Yu. I. Denisov-Nikol'skii	561 107
Reproduction of Experimental Allergic Polyneuritis with a Purified Myelin Fraction – G. V. Konovalov, Kh. Annanepesov, and V. I. Krasil'nikova	564 110
Cells Producing ACTH – V. I. Romanov and R. A. Kargina-Terent'eva	568 114
Changes in Certain Organs after Experimental Intraperitoneal Injection of Asbestos- Containing Dust – V. N. Karacharova, R. A. Ol'shvang, and F. N. Kogan	572 117
METHODS	
Method of Simultaneous Recording of the Electrogram and Mechanogram of the Specific Muscle of the Ventricles – V. F. Eroshkin, I. Yu. Vinokurova, and S. P. Anikeeva	575 121

(Contd)

Available from Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY

	Engl./Russ.	
Method of Obtaining Large Fragments of Myocardial Fibers from Adult Animals		
- A. L. Shnaper	577	123
Method of Intravital Bone Marrow Puncture in Small Laboratory Animals		
- V. N. Zyablitskii and I. A. Rudakov	579	124
Available from Consultants Bureau		

The Russian press date (podpisano k pechatu) of this issue was 4/16/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 67, Number 6

June, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

Changes in Activity of Tactile Receptors under Sympathetic Influences -T. M. Dmitrieva and A. I. Esakov	581	3
Frequency Characteristics of Impulse Transmission in the Ciliary Ganglion of Cats in Ontogenesis-N. V. Shilling.	585	7
Electrophysiological Analysis of Ascending Anterior Hypothalamic Influences on the Cortex of Unanesthetized Rabbits-V. N. Provodina	588	10
Effect of Paired Electrical Stimulation of the Heart on Its Hemodynamics V. I. Shumakov, A. E. Kuvaev, V. E. Tolpekin, and G. P. Itkin	591	13
Role of Histamine in the Mechanism of Action of Catecholamines on the Heart -R. O. Amiredzhibi	594	16
Fibrinolytic Activity of Rat Tissues-Yu. P. Nikitin and T. A. Tabarovskaya.	597	19
Changes in Activity of the Urethral Sphincter during Stimulation of Mechanoreceptors of the Urinary Bladder-V. A. Kuz'menko.	600	21
Physiological and Histological Parallels during Analysis of Secretory Activity of the Gastric Mucosa in Experimental Animals and Man-S. M. Lipovskii	603	25

PATHOPHYSIOLOGY AND GENERAL PATHOLOGY

EEG Changes Following Total Cerebral Angiography in Patients with Organic Brain Lesions-A. I. Arutyunov, O. M. Grindel', and V. N. Kornienko.	607	30
Analysis of Changes in Arterial Pressure and Working Efficiency of the Myocardium in Rabbits Trained for Anoxia and Muscular Exertion-G. A. Antonova.	611	34
Changes in Complementary Function of the Blood Serum in Animals Irradiated Once and Twice-A. A. Ivanov	613	37
Mechanism of Responses of the Hypothalamico-Hypophyseal-Adrenal System to Stress -S. A. Eremina	616	40
Effect of Tetracyclines on Permeability of Erythrocytes in Burns-V. I. Pevzner and E. A. Govorovich	619	43
Possible Passage of Specific Antigens through the Blood-Brain and Blood-Eye Barriers in Plague Toxicosis-K. M. Mokhin, R. A. Beloborodov, V. I. Veinblat, and T. A. Kotkina.	621	45
Role of Acetylcholine in Disturbances of Axoplasm Transport in Thick Medullated Nerve Fibers in Experimental Botulism and Tetanus-V. V. Mikhailov and L. A. Chekhovskaya.	623	48
Physiological Changes in the Nervous System after Sensitization with Brain Tissue Antigen-A. P. Tsibul'kin, B. I. Volodin, and I. M. Rakhmatullin	626	52
Depression of Sciatic Nerve Excitation in Animals Sensitized by Specific Antigen -G. A. Erzina	629	55

BIOCHEMISTRY AND BIOPHYSICS

Indices of Lipid Metabolism in Experimental Thyrotoxicosis-A. V. Negovskaya	632	58 (Contd)
---	-----	---------------

Available from Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 67, No 6, 1969

	Engl./Russ.
Effect of Substrate on Respiration Coupled with Phosphorylation in the Lumbar Division of the Spinal Cord—A. I. Dvoretzskii and A. D. Reva	634 60
Muscle Enzyme Activity in Human Blood Vessel Walls under Normal Conditions and in Essential Hypertension—I. A. Mikhailova and V. A. Yur'ev	636 62
Effect of Cortisone and Insulin on Hexokinase Activity of Rat Blood Lymphocytes—A. M. Emel'yantsev and N. A. Sveshnikova	639 65
Blood Serotonin Concentration in Healthy Dogs—K. M. Znamenskaya and G. A. Chernov	641 67
Effect of Pituitrin P on Sodium and Potassium Content in the Rabbit Arterial Wall—S. V. Rutsai	643 69
Effect of Supplementary Administration of Trace Elements on Vanadium Metabolism in Experimental Atherosclerosis—G. A. Babenko and I. P. Vandzhura	646 72
 PHARMACOLOGY	
Adrenergic Receptors of the Frog Myocardium as Iron-Containing Complexes—I. V. Komissarov and G. I. Reutskaya	649 75
Effect of Antipyretics on Experimental Bronchospasm—A. I. Shevchenko	652 78
 MICROBIOLOGY AND IMMUNOLOGY	
Amino Acid Composition of Cultures of <i>Salmonella typhi</i> and <i>Salmonella paratyphi</i> A and B—N. V. Khatuntseva, G. V. Rybasova, and M. V. Mironova	654 81
Combined Action of Fibrinolysins of the Principal Agents Causing Gas Gangrene—S. P. Zhak, A. I. Mitskevich, and É. É. Shtefan	657 84
Effect of Actinomycin D on Cytotoxic Activity of Normal Lymphocytes in Tissue Culture—B. D. Brondz	659 86
Immunobiological Properties of the Serum in Multiple Sclerosis—T. M. Tsaregorodtseva and N. V. Chernigovskaya	662 89
Antigenic Structure of Human Kidney Tissue—R. F. Averkina and O. E. Vyazov	665 92
Pathogenesis of Parabiologic Poisoning—A. S. Shevelev, V. F. Semenov, E. A. Fedosov, and G. D. Mikheeva	669 96
 EXPERIMENTAL BIOLOGY	
Role of Glycoproteins in Regulation of Organ Growth in Embryogenesis—V. B. Khvatov and V. A. Konyshov	671 99
Effect of Eleutherosides on Weight and Mitotic Activity of the Regenerating Mouse Liver—S. E. Li	674 103
Induction of Osteogenesis in Lymphoid Cell Populations in Guinea Pigs—K. S. Lalykina and A. Ya. Fridenshtein	676 105
Homografts of Bone Tissue Sterilized by Formalin Vapor—K. D. Timashkevich	680 108
Morphological Analysis of the Exocrine Part of the Regenerating Pancreas—M. I. Chichinadze	683 112
Response of the Enterochromaffin System of Albino Rats and Guinea Pigs to Irradiation—G. G. Pankratova and G. A. Chernov	686 115
 METHODS	
Venous Pulse Sensors for Recording the Sphygmogram—A. D. Valtneris	688 118
An Electronic Device for Measuring the Signal/Noise Ratio on the Electroencephalogram—E. Ya. Voltinskii	690 119
Mass Processing of Histoautoradiographic Material—M. E. Skatkov	692 121
Determination of the Spectrum of Neurosecretion in Histological Sections—É. S. Gul'yants	694 123
Detection of Double- and Triple-Charged Cations in Tissue Cells of Chick Embryos—P. N. Kucherova	696 124

Available from Consultants Bureau

The Russian press date (podpisano k pechatu) of this issue was 5/20/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 68, Number 7

July, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

Effect of Calcium Concentration on Transmembrane Potentials and Contraction of Myocardial Cells—R. S. Orlov and E. F. Élik	699	3
Contraction of the Depolarized Uterine Muscle—A. T. Ketkin	704	8
Functional Mobility of Taste Receptors and the Blood Sugar Response—S. M. Budylna and L. D. Reztsova	707	11
Radioelectroencephalography of the Industrial Worker—S. S. Gofman	709	13
Mechanism of Active Transport of Ca^{++} from Blood into Bile—V. D. Romanenko	713	16

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Changes in Hematopoiesis in Rats under Stress—Yu. I. Zimin	715	19
Effect of Leukocytic Factors on Cutaneous Blood Vessels—I. A. Olvin and L. V. Koroleva	718	22
Differences in Changes in Capillary Permeability and Manifestations of Local Allergic Reactions in Sensitized Rabbits of Different Sexes—V. M. Khramov	720	24
Assessment of the Myocardial Hemodynamics by the Radioisotope Clearance Test in Coronary Insufficiency before and after Surgical Treatment—V. N. Klimov, V. D. Tarasenko, and A. G. Baranov	723	27
Effect of Adrenal Function on Changes in Serum Aminotransferase Activity of Albino Rats with Shock Produced by Crushing the Soft Tissues—N. A. Kulikova	725	29
Excretion of Adrenalin, Noradrenalin, and Vanillyl-Mandelic Acid in the Urine of Rats with Experimental Pneumococcal Infection—E. V. Guseva and Z. A. Popenenkova	728	31
Changes in Thyroid Function Produced by Glutamic Acid under Normal and Anoxic Conditions—M. S. Volkov	731	34
Investigation of the Biological Action of Millimeter Electromagnetic Waves—Z. V. Gordon, E. A. Lobanova, I. A. Kitsovskaya, and M. S. Tolgakaya	734	37

BIOCHEMISTRY AND BIOPHYSICS

Effect of Exogenous Lipid Hydroxypolymers on the Tissue Phospholipid and Cholesterol Level in Viscera of Experimental Animals—V. G. Parteshko	737	40
Comparative Study of Fetuin and Embryo-Specific α -Globulin in Bovine Fetal Serum—A. A. Terent'ev	740	42
Mechanisms of Hypothalamo-Reticular Influences on the Content of Sulfhydryl Groups in the Cerebral Cortex—É. V. Gerasimovich	743	46
Plasma and Thyroid Levels of Protein-Bound Iodine in Progeny of Hypothyroid Rats—L. M. Gol'ber and A. G. Khomasuridze	748	51
Effect of Pituitary Somatotrophic Hormone on Liver Nitrogen Metabolism in Rabbits with Experimental Thyrotoxicosis—S. G. Gasanov	751	54

(Contd)

Available from Consultants Bureau

	Engl./Russ.
Effect of the Ultrahigh-Frequency Electromagnetic Field on the Carbohydrate Metabolism of the Rat Brain—L. I. Mishchenko	754 56
MICROBIOLOGY AND IMMUNOLOGY	
Transmission of Drug Resistance from <i>Escherichia coli</i> to Dysentery Bacteria —S. I. Sherishorina and B. A. Shenderov	757 59
Effect of Chloramphenicol on Ability of X Rays to Induce Synthesis of Colicin D in <i>Escherichia coli</i> Strain CA-23—V. A. Gumenyuk	759 61
Sensitivity of Some Tissue Cultures to the Toxin of <i>Clostridium sordellii</i> —S. A. Shamraeva ..	761 64
Properties of Secondary Cytophilic Mouse Vi-Antibodies—V. I. Levenson, N. I. Braude, and E. V. Chernokhvostova	763 65
Effect of Actinomycin D on Cytotoxic Activity of Immune Lymphocytes in Tissue Culture —B. D. Brondz	766 68
Effect of Antibiotic Therapy on the Course of Homologous Sickness in F ₁ Mouse Hybrids —E. A. Fedosov and A. S. Shevelev	769 71
ONCOLOGY	
Attempts to Use the Interference Phenomenon to Detect Mouse Leukemia Viruses in Tissue Culture—Z. I. Merekalova	771 74
Lactate Dehydrogenase Isoenzymes in a Transplantable Rat Astrocytoma—F. B. Levin, N. S. Spryshkova, and L. Ya. Yablonovskaya	774 76
Effect of Bacterial Polysaccharide from <i>Pasteurella pestis</i> on Distribution of I ¹³¹ -Labeled Fibrinogen in Mice with Crocker's Sarcoma—N. V. Gasperovich and L. A. Voznesenskaya	777 79
Properties of the Serum Factor of Normal Animals and Animals with Tumors in the Gel Diffusion Reaction—M. S. Lomakin and T. A. Pokrovskaya	779 81
EXPERIMENTAL BIOLOGY	
Inactivation of Colony-Forming Activity of Embryonic Hematopoietic Cells in Transplantation from Two Genetically Incompatible Donors—S. S. Vasilelskii and R. V. Petrov	783 86
Colony-Forming Cells in Organ Cultures of Embryonic Liver—N. V. Latsinik, E. A. Luriya, N. A. Samoilina, A. Ya. Fridenshtein, and I. L. Chertkov	785 88
Stimulation of Proliferative Activity of Liver Cells of Intact Mice by Lymphocytes of Partially Hepatectomized Donors—A. G. Babaeva, N. A. Kraskina, and L. D. Liozner ..	788 91
Formation of Antigenic Properties of Kidney Tissue in Human Embryogenesis —R. F. Averkina and O. E. Vyazov	792 94
Genetic Aspects of Polyresistance of <i>Shigella sonnei</i> —R. N. Rebrova and M. A. Razorenov ..	795 98
Isolation and Characteristics of Recombination-Defective Mutants of <i>Escherichia coli</i> —S. N. Rudneva and A. P. Pekhov	797 100
MORPHOLOGY AND PATHOMORPHOLOGY	
Adrenergic Innervation and Distribution of Cholinesterase in the Human Ovary —I. I. Semenova	800 103
Cholinesterase Activity in Differentiating Neurons of the Human Pelvic Plexus —R. M. Markov	804 106
Migration of Autonomic Neurons into Regenerating Tissues—A. K. Kolomiltsev	808 109
Morphological Changes in Unirradiated Hybrids with Transplantation Sickness —V. G. Molotkov and E. A. Fedosov	811 112
Paradoxical Effect of Carbon Tetrachloride when Administered at Different Frequencies —D. S. Sarkisov, L. D. Krymskii, K. I. Dzarakhokhov, and L. S. Rubetskoi	814 115
METHODS	
Apparatus for Measuring Intracranial (Cerebrospinal Fluid) Pressure and for Subarachnoid Injection of Accurate Doses of Radioactive Isotopes—F. M. Lyass and N. A. Malorova ..	817 118
	(Contd)
Available from Consultants Bureau	

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY

Vol 68, No 7, 1969

Engl./Russ.

A Chamber for Intravital Tissue Microscopy in Experiments on Rats—G. B. Pliss and M. G. Iogannsen	819	120
Operative Approaches to the Cervical Spinal Ganglia of the Cat—S. P. Semenov	822	122
Method of Measuring the Arterial Pressure in Chronic Experiments on Rats —E. S. Stal'nenko, N. A. Kurchenko, and N. S. Sukachev	824	124

Available from Consultants Bureau

The Russian press date (podpisano k pechatl) of this issue was 6/17/1969.

Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 68, Number 8

August, 1969

CONTENTS

	Engl./Russ.
PHYSIOLOGY	
Cortical Relationships with the Hypothalamus and Reticular Formation of the Brain Stem—V. O. Al'ber	827 3
Role of the Limbic Cortex in Regulation of the Lymph Flow and Lumen of the Lymphatic Vessels—L. É. Bulekbaeva	831 7
Temperature Analysis of Properties of the Heart—V. M. Pokrovskii	834 9
Effect of Changes in Body Position in Space on Muscle Tone in Newborn Infants —T. G. Antipova	836 12
Extraadrenal Action of Pituitary Adrenocorticotrophic Hormone on Skeletal Muscle —V. I. Korkach	839 15
Quantitative Evaluation of Filling and Contractile Power of the Gall Bladder —V. I. Kotel'nikova	842 18
Influence of Different Cortical Areas on Unit Activity in Lateral Divisions of the Posterior Hypothalamus—V. G. Zilov	845 21
PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY	
Effect of Circulation in the Lungs on Functional State of the Lung Stretch Receptors —V. I. Savchuk	848 24
Effect of Adrenalectomy on Intensity of Phospholipid Metabolism in the Rat Brain in Anoxia—L. M. Antonov and S. V. Gasteva	852 28
Changes in the Osseous System of Monkeys after Neurosis—V. G. Simavonyan and Sh. L. Dzhalagoniya	855 31
Thyroid Function and Blood and Tissue Levels of SH-Groups in Rabbits with Experimental Atherosclerosis—Z. I. Fabri	858 35
Direct Action of Allergen on Adrenal Cortical Function in Dogs—V. A. Tomilets	860 38
Changes in the State of the Hypothalamo-Hypophyseo-Adrenal System in Experimental Diphtheria—A. V. Utyumova-Malova	862 38
Sensitivity of Mice to <i>Clostridium oedematiens</i> Toxin Administered in Various Ways —E. V. Vlasova	864 40
Mechanism of the Phlogogenic Activity of Leukocytes—L. V. Koroleva and A. A. Svechnikov	866 41
Experimental Tuberculosis of the Adrenals in Dogs—I. K. Prostov	868 43
Determination of Total Body Water of Rabbits Exposed to High External Environmental Temperatures Using a Tritium Labeling Method—L. A. Guseva and M. R. Zel'tser	870 45
BIOCHEMISTRY AND BIOPHYSICS	
Changes in Incorporation of Amino Acids into Proteins after Death—A. S. Konikova, Yu. E. Babakaya, and A. V. Pogosova	873 48

(Contd)

Available from Consultants Bureau

	Engl./Russ.	
Influence of the Right and Left Vagus Nerves on Protein Metabolism in Different Parts of the Dog Myocardium —G. V. Chernyshova and A. V. Pogosova	876	51
Oxidative Phosphorylation in Mitochondria of the Rat Liver at Different Stages of Regeneration —I. K. Rusnak and I. V. Petrova	879	54
Effect of a Hepatotropic Poison (CCl₄) on Metabolism of Homologous Immune Globulins in a Recipient —M. I. Ravich-Shcherbo and D. N. Evnin	881	56
In Vivo Relationships between Vitamins A and E —L. V. Kryukova, I. I. Ulasevich, and V. S. Medvedskaya	885	59
Development of Metabolic Disturbance) after Rapid Inactivation of Insulin —S. G. Genes, M. M. Kozopolyanskaya, V. V. Poltorak, and S. N. Ushenko	887	61
Effect of Hypothermia and Spontaneous Reheating on Content of Some Carbohydrate-Phosphorus Metabolites in the Suslik Brain at Different Ages —S. P. L'vova	889	63
PHARMACOLOGY		
Effect of Thiopental Sodium on Relationship between Changes in the Electrocardiogram and Some Cortical Evoked Responses —R. U. Ostrovskaya	891	65
Action of 2,4-Dinitrophenol on Diuresis in Dogs —G. D. Anikin	896	70
Effect of Vasopressin and Pituitrin on the Parotid and Submandibular Glands —M. S. Yaremenko	899	73
MICROBIOLOGY AND IMMUNOLOGY		
Investigation of Ejection of DNA-Containing Macrothreads from Lymphocyte Nuclei —V. V. Meunargiya, S. N. Sura, N. V. Leneva, and G. Ya. Svet-Moldavskii	902	76
Antigenic Differences in Thymocytes and Lymphocytes —N. V. Medunitsin	906	80
Mechanism of the Antiglobulin Test —I. S. Golcd	909	83
Mechanism of the Stimulant Effect of Orotic Acid on Phagocytic Activity of Leukocytes —M. M. Patés, E. E. Belen'kil, and O. A. Buyanovskaya	911	85
Action of Staphylococcal Leukocidins on Human Granulocytes —Ts. V. Georgadze	913	87
Thio-Tepa and Thio-Tepa Plus Hydrocortisone in Prolonging Viability of Homografts —T. F. Bredikhin	916	90
Effect of Thyroxine and Methylthiouracil on Gonadotropic Reaction and Ability of Androgen to Stimulate Comb Regeneration in Cocks —P. A. Vunder, A. D. Gorbacheva, V. P. Ermolin, and A. P. Morozova	919	93
Maintenance of Hematopoiesis in Bone Marrow Transplanted into Preliminarily Cultivated Bone Stroma —T. O. Prusevich and E. A. Luriya	922	96
Relationship between S and G₂ Periods and Total Segment of Interphase Relatively Insensitive to Actinomycin in Regenerating Mouse Liver Cells —I. D. Belyaeva	924	99
Healing of Skin Wounds in Birds —E. A. Efimov	927	102
MORPHOLOGY AND PATHOMORPHOLOGY		
Effect of Somatotrophic Hormone on Duration of DNA Synthesis during the Mitotic Cycle —Yu. V. Bardik	930	106
Regeneration of Lymphatics after Extirpation of Lymph Glands —T. L. Tomusyak	933	109
Effect of Coamide on Structure of Nerve Cells in the Skin and Muscle of Irradiated Animals —F. Kh. Seifullin	937	113
Effect of Acute Anoxia with Reduced Barometric Pressure on Mast Cells in Rats —V. A. Lyalyaev	940	116
Intranuclear Inclusions in Brain Nuerons of Hens with Experimental Hygromycin B Poisoning —R. A. Mukhamedshin	943	118

(Contd)

Available from Consultants Bureau

METHODS

A Reversible Method of Blocking the Neocortex by Cold for Use in Long-Term Experiments

—N. Yu. Belenkov, V. A. Sosenkov, V. N. Sapozhnikov, and V. I. Shcherbakov

946 121

Methods of Investigating the Exocrine Function of the Pancreas and Some Results Obtained

—S. R. Perepelkin and A. K. Ezhov.

949 124

Available from Consultants Bureau

The Russian press date (podpisano k pechatl) of this issue was 7/22/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 68, Number 9

September, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

Connections of the Rubrospinal Tract with Neuron Groups in the Lumbar Division of the Spinal Cord—A. I. Pilyavskii and G. G. Skibo	951	3
Changes in the Relationship between Cortical Polarization in Rabbits and the State of Sleep or Waking during Ontogenesis—I. I. Gokhblit and S. A. Potemkina	955	7
Action of Some Hormones and Other Biologically Active Substances on Blood Basophils in Rabbits—V. I. Goncharova and I. V. Nevskaya	958	10
Nature of Increased Sensitivity of Smooth Muscles to Acetylcholine Caused by Catecholamines and Serotonin—A. N. Talalaenko	961	13
Effect of Exogenous and Endogenous Serotonin on Hemostasis—V. P. Baluda, V. M. Dorofeev, and S. S. Khnychev	965	17

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Changes in the Hypothalamo-Hypophyseal System of Dogs after Castration—S. V. Zhukova	968	20
Effectiveness of Ribonucleotides for Replacement Therapy in Certain Diseases—B. B. Fuks, S. F. Shershevskaya, L. M. Popova, and A. L. Shnaper	971	23
Increasing the Resistance of Animals to Decompression Disease by Adaptation to Anoxia at Normal Barometric Pressure—I. P. Yunkin	974	26
Effectiveness of Acth in the Prophylaxis of Acute Radiation Sickness—V. D. Rogoskin, D. T. Musabekov, and G. A. Shapiro	977	30
Electrophysiological Study of Duodenal Motor Activity before and after Stomach Operations—G. V. Netesin	979	32
Incorporation of Glycine-1-C ¹⁴ into Hematopoietic Organs and Blood of Rabbits with Thyrotoxicosis—V. V. Ivleva	982	35
Autoimmune Processes in Animals Injected with Homologous Heart Antiserum—N. M. Mazina, M. I. Undritsov, V. D. Akhnazarova, M. S. Ruseva, and T. V. Mel'nikova	985	38

BIOCHEMISTRY AND BIOPHYSICS

Comparative Characteristics of High-Polymer RNA from Tissues and Cell Fractions from Different Parts of the Dog Heart—L. A. Kopteva and N. M. Dmitrieva	989	43
Comparative Investigation of Microheterogeneity of Myoglobins in some Animals and Man—O. V. Troitskaya	992	46
Electrophoretic Fractionation of Proteins of Nuclear Membranes of the Rat Liver and Hepatoma—I. B. Zbarskii, K. A. Perevozhchikova, and L. N. Delektorskaya..	995	49
Activity of some Enzymes in Different Layers of the Rat Kidney in Experimental Nephritis—M. A. Dobrinskaya, E. B. Levi and Kh. M. Rubina	998	52

(Contd)

Available from Consultants Bureau

Biochemical Changes in the Blood Serum and Myocardium after Local Irradiation of the Rabbit Heart with Hard Bremsstrahlung—N. P. Mikhaleva, I. N. Mochalova, and I. I. Ivanov	1001	55
Effect of Low-Frequency Ultrasound on Electrophoretic Properties and Thermosensitivity of Human Serum Proteins—S. Kh. Nikolov	1004	58
PHARMACOLOGY		
Effect of ATP and Sodium Nucleinate on Collateral Circulation and Oxygen Tension in the Myocardium after Ligation of the Coronary Artery—A. V. Sapozhkov	1007	61
MICROBIOLOGY AND IMMUNOLOGY		
Possibility of Passage of Epidemic Hepatitis Virus from the Blood Serum of Patients to Leukocyte Cultures from Healthy Donors—A. K. Shubladze, I. F. Barinskii, A. A. Shatkin, I. V. Dement'ev, and F. P. Filatov	1010	64
Antibody-Synthesizing Function of the Mouse Spleen in the Early Postnatal Period —I. N. Maiskii, T. A. Pokrovskaya, and G. P. Airapet'yan	1014	68
Role of Macrophages and Neutrophils of Immune Mice in Phagocytosis of Virus-Infected Cells—A. A. Kyazimova, G. I. Il'in, L. V. Solilova, T. I. Fomina, and A. A. Smorodintsev	1016	70
Ability of Lymphocytes to Produce Fraction C ₁ ' of Complement—V. I. Shkurdo and G. M. Veniaminova	1019	73
Elevation of the Lysozyme Level in Macrophages of Guinea Pigs Sensitized by Streptococcal Antigens Following Injection of Specific Antigen—V. A. Toder	1022	75
Production of Active Immunity in Irradiated Animals by Enteral Vaccination —L. A. Nikolaeva	1025	78
Some Immunobiological Properties of Heterophilic Antibodies and Natural Reagents —M. S. Lomakin	1028	81
ONCOLOGY		
Autoradiographic Investigation of DNA Synthesis in Cells of Experimental Brain Tumors Preserved at -78°—R. I. Aniskina	1032	87
Study of the Opsonizing Properties of Serum and the Phagocyte Response in Cancer Patients—R. F. Kovbasyuk	1035	89
Effect of Antirionidase Serum and Its γ -Globulin Fraction on Mitotic Activity of Normal Tissues of Mouse with Developing Tumors—S. V. Sukhorukikh and N. A. Troitskaya	1037	92
EXPERIMENTAL BIOLOGY		
Diurnal Rhythm of Mitotic Activity in the Adrenal Cortex and Corneal Epithelium of 16-Day Rat Fetuses—R. I. Bogatova	1040	96
Relationship between Diurnal Rhythm in the Number of Binuclear Cells in the Rat Liver and Its Glycogen-Forming Function—A. A. Zhirnova	1042	98
Transforming and Inhibitory Action of X Rays on Development of Spur Anlagen in Chick Embryos—V. F. Puchkov	1045	101
Reactive Changes in Leukocytes in Animals Sensitized with Homologous Tissue Antigens—M. M. Kapichnikov, P. P. Sakharov, and G. P. Kudrina	1048	104
Distribution of Transplantation Antigens in Subcellular Fractions of some Mouse Organs—A. A. Yarinin	1052	109
Pattern of Mitosis in DKLCh-4 Cultures Infected with Strain K of Herpes Simplex Virus—V. N. Blyumkin, T. M. Maevskaia, and A. D. Kyaburu	1055	112
MORPHOLOGY AND PATHOMORPHOLOGY		
Investigation of the Subarachnoid Spaces of the Brain by Injection of Actively Motile Particles (Infusorians) into the Cerebrospinal Fluid—M. A. Baron	1057	115

(Contd)

Available from Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 68, No 9, 1969

	Engl./Russ.
Cell Proliferation in the Basal Layer of the Stratified Squamous Epithelium of the Esophagus in Hypophysectomized Rats—Yu. V. Bardik	1060 118
Hematological Characteristics of Some Lines of Mice—R. L. Maslennikova, I. A. Rudakov, and S. P. Podsosov	1063 121
METHODS	
Apparatus for Photoelectric Recording of Amplitude of Contraction of Chick Embryonic Myocardial Cells and Explants—A. E. Karapetyan, R. A. Gevorkyan, M. V. L'vov, and G. A. Manukyan	1066 124

Available from Consultants Bureau

The Russian press date (podpisano k pečati) of this issue was 8/12/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 68, Number 10

October, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

The Alveolar Plateau as a Measure of Regional Asynchronous Ventilation of the Lungs -A. P. Zil'ber	1069	3
Changes in Adhesiveness and Aggregation of Platelets after Passage of Blood Through the Lungs-V. M. Zyablitskii.	1073	6
Ability of Man to Maintain a Steady Respiration Pattern while Inhaling Different Gas Mixtures-I. S. Breslav	1076	8
Effect of Level of Heat Production of Human Skin Thermoreceptor Function -Z. P. Belikova	1081	13
Effect of Depth of Narcotic Sleep on Correlations of the Electroencephalogram -D. A. Ginzburg	1083	15
Hormonal Regulation of Motor Activity of the Digestive Organs-A. A. Fokina	1087	19
Effect of Intragastric Pressure on Secretion of the Gastric Glands-G. F. Korot'ko and A. M. Musaev	1091	22
Reflex Responses of the Urethral Sphincter to Stimulation of the Pudendal and Pelvic Nerves by Single Pulses-V. A. Kuz'menko	1094	25
Acid-Base Balance in Whole Blood and Erythrocytes of Healthy Dogs-A. A. Safarova, M. L. Garfunkel', and I. L. Vinogradova	1097	28
Qualitative Symmetry of Secretions of Paired Salivary Glands Functioning Simultaneously-V. I. Gutkin and G. P. Komarov	1099	30

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Blood Supply of the Brain in Cranio cerebral Hypothermia-V. P. Vindyuk and G. G. Shchegol'kova	1102	33
Mechanism of Changes in Adhesiveness and Aggregation of Platelets in Acute Radiation Sickness-V. P. Baluda, G. N. Sushkevich, N. A. Zhukova, S. S. Khnychev, and V. V. Shiryaev	1104	35
Mechanism of Action of ϵ -Aminocaproic Acid on Capillary Permeability -A. A. Dzizinski, G. V. Danilevich, T. K. Kochergina, and A. I. Zenin.	1108	39
Experimental Effect of Serum from Atherosclerotic Patients on Lipolytic Activity of the Aortic Wall-B. L. Lempert and E. A. Aleksandrova	1111	41
Succinate-Dehydrogenase Activity in the Brain and Liver of Rats under Hypothermia and after Rewarming-V. A. Eliseev	1113	43
Distribution of Bone Marrow Cells after Injection into Animals with Experimental Hypoplastic Anemia-V. I. Kalinicheva and E. Ya. Ivanova	1115	45
Intravascular Life Span of Granulocytes in Thyrotoxicosis and Diabetes Mellitus -Z. G. Filyushina	1118	48
Effect on Chronic Stimulation of the Sciatic Nerve on Serum Proteins and Water- Soluble Liver Proteins-I. A. Ivanyura and L. I. Komnatnaya	1120	49

(Contd)

Available from Consultants Bureau

BIOCHEMISTRY AND BIOPHYSICS

- Immunochemical Identification of a New Embryo-Specific β -Globulin in the Blood Serum of Human Embryos, Fetuses, and Neonates—Yu. S. Tatarinov and V. N. Masyukevich. 1123 52

PHARMACOLOGY

- Analysis of the Action of Quateron on the Adrenalin and Noradrenalin Content in Different Layers of the Stomach—S. A. Mirzoyan and T. L. Virabyan 1126 56

MICROBIOLOGY AND IMMUNOLOGY

- Effect of Some Immunodepressants on Antibody Formation Against Sheep's Erythrocytes—L. A. Pevnitskii, V. V. Solov'ev, L. N. Filitis, and Yu. A. Sorkina. 1129 59
 Effect of Prednisolone on the Primary Immunologic Response—L. S. Uteshev, B. V. Pinegin, A. G. Kalinkovich, and V. V. Lebedev. 1133 63
 Properties of Bacterial Protoplasts and Spheroplasts—G. I. Fedorova 1135 66

ONCOLOGY

- Benzpyrene Breakdown by the Soil Microflora—A. Ya. Khesina, N. P. Shcherbak, L. M. Shabad, and I. S. Vostrov. 1139 70
 Detection of Group-Specific Antigen of Mouse Viruses in Normal Mice of High and Low Leukemic Lines—E. S. Ievleva, N. V. Engel'gardt, and G. I. Abelev. 1142 73
 Morphology and Function of the Pituitary and Thyroid in Mice with Low and High Susceptibility to Cancer—M. E. Skatkov, V. I. Romanov, and A. A. Avetisyan 1146 77

EXPERIMENTAL BIOLOGY

- Role of Ribonucleic Acids in Regulation of Growth of Tissues and Organs—A. B. Alekseev. 1148 79
 Effect of Exogenous Homologous RNA and Hydrocortisone on the Content of Collagen and Glucosaminoglycans in Regenerating Rat Bone—G. A. Babichuk and A. M. Belous 1151 82
 Changes in the Number of Cells Synthesizing DNA and in Mitoses in the Mouse Corneal Epithelium during the 24-Hour Period—S. G. Mamontov. 1155 85
 Toxic Action of Carbon Disulfide on Reproductive Function and Potentiation of the Effect by Tryptophan—V. K. Yaroslavskii. 1158 88
 Differentiation of Immunocompetent Cells in Lymph Gland Tissue Cultures—K. A. Lebedev and L. V. Van'ko. 1161 91
 Phagocytic Function of the Epithelium of the Seminiferous Passages in Albino Rats during Reparative Regeneration—A. G. Bobkov. 1164 94
 Mitotic Indices in RES (Clone 1) Cultures Infected with Acute Human Encephalomyelitis Virus—L. A. Monastyreva and V. N. Blyumkin. 1168 98

MORPHOLOGY AND PATHOMORPHOLOGY

- Centrifugal and Centripetal Fibers in the Optic Nerves—N. G. Gorkov. 1171 101
 Electron-Microscopic Investigation of Penetration of Copper Oxide Aerosol from the Lungs into the Blood and Internal Organs—Yu. D. Batsura. 1175 105
 Radiometric and Histoautoradiographic Investigation of the Capillary Circulation in Tuberculosis—L. E. Gedymin 1179 109
 Histochemical and Structural Study of Inflammatory Growths of the Prostatic Epithelium—A. G. Ginovker. 1183 112
 Development of the Adrenal Cortex in Offspring of Totally Irradiated Rabbits—M. I. Moldavskii and A. I. Britun. 1187 116

METHODS

- Primary Selection of Hypocholesteremic Agents (Simulation of Endogenous Hypercholesteremia in Animals)—B. M. Klebanov. 1190 119

(Contd)

Available from Consultants Bureau

A Polyethylene Cannula with Fixing Device for Insertion into Animals' Blood Vessels - V. I. Voitkevich	1193	121
Study of Creatinine Solution by the Arrest of Diuresis (Stop-Flow) Test - V. G. Pashinskiy	1196	123

Available from Consultants Bureau

The Russian press date (podpisano k pechati) of this issue was 9/2/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 68, Number 11

November, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

Changes in Evoked Potentials of the Reticular Formation Following Hypothalamic Stimulation by Single Pulses - D. G. Shevchenko	1199	3
Mechanism of Dilatation of the Limb Vessels in the Posthypoxic Period - N. K. Savel'ev and Yu. M. Smirnov	1203	6
Methods of Investigation of Static Endurance - T. A. Borovskaya	1206	10

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Functional Isolation as a Principle of Activity of the Nervous System (Descending and Contralateral Influences on Spinal Mechanisms of Protective Limb Reflexes) - S. I. Frankshtein, V. V. Lisin, and N. N. Ul'yanina	1209	13
Role of Regions of the Hypothalamus in the Development and Course of Reflexogenic Hypertension - A. V. Kharabadzakh'yan	1212	16
Changes in Phase Structure of the Cardiac Impulse in Hypothermia - I. I. Golitsyna	1214	18
Changes in Threshold of Epicardial and Pericardial Stimulation Associated with Inflammation and Vibration of the Chest Wall - Yu. E. Malyarenko and T. N. Malyarenko	1216	20
Reproduction and Roentgenologic Study of Adrenalin Edema of the Lungs in Rats - A. I. Ulovich and Kh. A. Khidirbeili	1220	24
Role of Various Phagocytic Cells in Removal of Quartz Dust from the Lungs - S. K. Starikova	1223	27
Effect of Antibacterial Therapy on Changes in Thyroid Function in Experimental Tuberculosis - S. I. Pashchenko and A. E. Pashchenko	1226	30
Behavioral Disturbances in Rats Receiving Teratogenic Agents Antenatally - V. G. Malakhovskii	1230	34

BIOCHEMISTRY AND BIOPHYSICS

Content and Distribution of Phospholipid Fractions in the Spinal Cord - A. D. Reva and L. P. Rudenko	1233	38
Serum Protein Fractions in Bacteria-Free Guinea Pigs Investigated by Disc Electrophoresis - O. V. Chakhava, V. A. Chibisova, K. L. Shakhaniina, and T. I. Tsatsenkina	1235	40
Effect of Microdoses of Copper on Tissue Respiration of the Rabbit Liver - E. S. Belozarov and L. A. Kononova	1238	43
Effect of a Direct Current on Penetration of Cysteine through Semipermeable Membranes - M. A. Tikhonova, A. S. Sharpan', G. K. Shipitsyna, S. I. Krotova, V. G. Yakovlev, M. G. Zotova, and I. V. Rodionova	1240	44

(Contd.)

Available from Consultants Bureau

PHARMACOLOGY

Character of Central Serotonin-Sensitive Structures Responsible for the Depriming Effect of 5-Hydroxytryptophan on the Alarm Reaction in Cats - L. F. Glushko and A. P. Gilev	1243	47
Analysis of the Cortical Action of Barbiturates - V. L. Glants, A. G. Rabin, and V. K. Reshetnyak	1246	50
Pharmacological Sensitization of Cholinergic Receptors Independent of Cholinesterase Inhibition - V. B. Prozorovskii and O. N. Khromova	1249	53
Properties of Serotonin-Sensitive Structures of the Right Atrium in Rabbits - I. B. Fedorova	1252	56

MICROBIOLOGY AND IMMUNOLOGY

Immunologic Tolerance Produced in Adult Animals by Combined Injection of Cyclophosphamide and Antigen (Sheep's Erythrocytes) - L. N. Fontalin, L. A. Pevnitskii, and V. V. Solov'ev	1256	60
Immunologic Tolerance in Adult Animals to Protein Antigens Treated by Biological Filtration - G. N. Obrezha	1260	63
Determination of Circulating Antibodies and Tissue-Bound γ -Globulin in Rabbits with Allergic Myocarditis by the Immunofluorescence Method - L. V. Beletskaya, Yu. S. Ismailova, and T. A. Danilova	1263	66
Stabilization of Reaction Products of Human and Animal Sera with Tissue Extracts in Agar Gel - B. É. Chechik	1266	70
Effect of Chloramphenicol on Antibody Formation - N. E. Gladkova, B. S. Uteshev, B. V. Pinegin, and V. V. Lebedev	1269	73
Study of the Antiviral Properties of Chlorophyllin Sodium Preparations - B. L. Krikun, S. A. Chernomorskii, and L. K. Gurinovich	1271	75

ONCOLOGY

Dynamics of C _x -Reactive Protein in Rabbits Inoculated with a Brown-Pearce Tumor - M. N. Nilovskii	1274	78
Specificity of Tissue Polysaccharides from Carcinoma of the Human Stomach - N. A. Nazarenko	1277	80
Transplacental Action of 3,3'-Dichlorobenzidine and Orthotolidine on Organ Cultures of Embryonic Mouse Kidney Tissue - N. I. Golub'	1280	83

EXPERIMENTAL BIOLOGY

Regeneration of Nerve Cells after the Action of Cerebrocytotropic Sera - N. A. Levkova, N. D. Skuba, and V. P. Lebedevskaya	1284	88
Mitotic Activity of the Regenerating Rat Kidney - A. A. Braun and F. Kh. Sharipov	1287	91
Effect of Growth Hormone on Duration of Individual Periods of the Mitotic Cycle in Stratum Basale Cells of the Rat Esophageal Epithelium - Yu. V. Bardik	1290	94
Effect of Desoxycorticosterone on Reparative Regeneration of Bone Tissue - N. F. Krut'ko	1293	97
Action of Progesterone on Mitotic Index in the Epithelium of the Uterine Wall, Uterine Glands, and Vagina - N. A. Roslyakova	1296	100

MORPHOLOGY AND PATHOMORPHOLOGY

Experimental Investigation of Skin Reactions to a Combination of X-Ray Irradiation and Prednisolone - É. K. Karnaukhova	1298	103
Morphological Features of Distal Portions of the Renal Medulla in Rodents Living in High Temperature Environments - T. L. Dubynin and I. I. Todris	1300	106
Cytochemical Changes in Circulating Blood Leukocytes during Experimental Immunologic Stimulation - I. A. Komissarova and V. V. Sura	1303	108

Available from Consultants Bureau

(Contd)

	Engl./Russ.	
Cyto- and Nucleoagglomeration Produced by Syncytium-Forming Agents in Monkeys - V. Ya. Karmysheva, Yu. G. Knyaginskaya, and L. L. Mironova	1307	112
METHODS		
The Use of Radiorheopneumography to Investigate External Respiration during Occupational Work - L. I. Popov and Z. M. Kuznetsova	1311	116
Method of Determination of Reagin Antibodies - T. A. Avdeeva	1313	118
Production of Luminescent Sera with the Aid of Dichlorotriazinylaminofluorescein - V. A. Chibisova, K. L. Shakhanina, Yu. E. Sklyar, and G. I. Mikhailov.	1316	120
Semiconductor Thermostat for Working with Biological Preparations in Open Cuvettes - E. Ya. Raikhbaum	1319	123

Available from Consultants Bureau

The Russian press date (podpisano k pechatu) of this issue was 10/15/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

BULLETIN OF EXPERIMENTAL BIOLOGY AND MEDICINE

A translation of *Byulleten' Eksperimental'noi Biologii i Meditsiny*

Volume 68, Number 12

December, 1969

CONTENTS

Engl./Russ.

PHYSIOLOGY

Rhythm Binding in Medullary Respiratory Neurons—A. M. Kulik and L. N. Kondrat'eva . .	1323	3
Activity of Respiratory Neurons in the Absence of Respiratory Movements —E. I. Soshnikov, R. A. Durinyan, and V. A. Safonov.	1327	7
Interceptive and Nociceptive Pressor Reflexes to the Action of Potassium Chloride on Tissues of the Hind Limb—P. E. Chernilovskaya	1330	10
Effect of Acetylcholine on Normal and Denervated Muscle Receptors—R. S. Arutyunyan . .	1334	14

PATHOLOGICAL PHYSIOLOGY AND GENERAL PATHOLOGY

Effects of Hypo- and Hyperthyroidism on Cortical Neurons in Rats Investigated by Interferometry—G. N. Moskovkin and A. M. Aref'eva	1337	18
Microphysiological Analysis of Electrical Activity of Spinal Neurons of Various Types in Experimental Tetanus—V. V. Mikhailov and I. L. Shvarts	1340	20
Cholinergic Influences on Metabolism in the Damaged Myocardium—L. Ya. Davydovskii and N. A. Strelyukhina	1343	23
Indices of Carbohydrate Metabolism in the Myocardium in Experimental Thyrotoxicosis —L. N. Skuratovskaya and I. A. Lobkov	1345	24
Effect of Age, Administration of Estradiol Dipropionate, and Ovariectomy on Lipid Deposition in the Aortic Wall of Rabbits—I. D. Nasledova	1348	27
Choice of Method of Blood Infusion during Resuscitation with the Heart-Lung Apparatus —A. A. Bozh'ev	1351	31
Experimental Determination of the Reserve Capacity of Erythropoiesis—I. I. Gitel'zon, N. B. Khripach, V. P. Makarov, and E. I. Kalent'eva	1353	33
Effect of Acoustic Stimulation on the Pituitary-Adrenal System in Healthy Rats and Rats Genetically Highly Sensitive to Sound—B. I. Monastyrskaya, I. B. Prakh'e, and R. A. Khaunina	1357	36

BIOCHEMISTRY AND BIOPHYSICS

Changes in Tissue Respiration and Content of Sulfhydryl Groups and Free Radicals in the Liver of Animals after Blood Loss and Hyperbaric Oxygenation —A. N. Leonov and V. A. Barsukov	1361	40
Effect of Antiplasmin on Afibrinogenemia Caused by Intravenous Injection of Viper (<i>Vipera lebetina</i>) Venom—V. E. Pastorova and L. K. Kikteva	1364	42
Group Differences in Content of Embryo-Specific Globulins in Fetal Dog Sera —A. V. Afanas'eva	1367	45

PHARMACOLOGY

Effect of Barbiturates and Sodium Hydroxybutyrate on Hippocampal Electrical Activity —G. N. Krolevets	1369	47 (Contd)
--	------	---------------

Available From Consultants Bureau

Role of Central Adrenergic Processes in the Mechanism of Action of Glyceryl Trinitrate on Sympathetic Tone and Vasomotor Reflexes—N. V. Kaverina, E. A. Bendikov, and Yu. B. Rozonov	1373	51
Presence and Character of the Metal in the Active Center of β -Adrenergic Receptors of Smooth Muscles—I. V. Komissarov and G. I. Reutskaya	1377	55
MICROBIOLOGY AND IMMUNOLOGY		
Changes in Phagocytic Activity of Peritoneal Exudate Cells of Mice Immunized with Influenza Virus—G. I. Il'in, A. A. Kyazimova, L. V. Solilova, and A. A. Smorodintsev	1380	59
Detection of α F-Globulin in Liver Sections from Human Embryos and Newborn Mice by Means of Fluorescent Antibodies—N. V. Engel'gardt, L. Ya. Shipova, A. I. Gusev, A. K. Yazova, and E. N. Ter-Grigorova	1383	62
Effect of Strophanthin K on Interferon Production in a Culture of Chick Embryonic Fibroblasts—F. N. Reizin and N. A. Zeitlenok.	1386	65
ONCOLOGY		
Experimental Determination of Individual Sensitivity of Tumors to Alkylating Compounds with Antitumor Action—G. I. Kulik	1389	68
Immunologic Reactivity of Mice with the Ascites Form of Ehrlich's Carcinoma—B. Botev and L. Markholev	1392	70
EXPERIMENTAL BIOLOGY		
Individual Variations in DNA Synthesis in the Regenerating Mouse Liver—I. V. Markelova and L. D. Liozner	1394	72
Macromolecular Organization of DNA in Regenerating Rat Liver after Partial Hepatectomy—T. S. Usakovskaya and P. I. Tseitlin	1397	75
Effect of Age on Ability of the Rat Pancreas to Regenerate—V. F. Sidorova	1401	79
Comparative Study of the Mitotic Cycle in Primary and Transformed Cultures of Green Guenon Kidney Cells—Z. A. Dzhemilev and F. I. Adzhigitov.	1405	83
DNA Synthesis in Cells of the Uterine and Vaginal Epithelium in Various Stages of the Sex Cycle—V. M. Budik	1407	85
EXPERIMENTAL GENETICS		
lac ⁻ Mutants of Pathogenic Serotypes of <i>Escherichia coli</i> —N. A. Zakirov, A. A. Abidov, and E. F. Kalinina	1411	89
MORPHOLOGY AND PATHOMORPHOLOGY		
Effect of Various Agents on State of the Lysosomes in Nerve Cells—A. A. Manina.	1413	91
Cytophotometric Investigation of the Effect of Aseptic Inflammation on the DNA Content in Nuclei of the Rabbit Amniotic Epithelium—V. D. Novikov.	1417	94
Cytological Study of the Action of Grigor'ev-Shiga Dysentery Toxin in Tissue Culture—G. M. Kipenskaya.	1420	96
Cytopathic Action of Una Virus on BHK-21 Cultures—O. N. Shcheglovitova, V. N. Blyumkin, L. L. Fadeeva, and L. Yu. Sekretta	1423	99
METHODS		
Detection of Embryonic α -Globulin by Aggregate Hemagglutination in Serum of Patients with Certain Types of Cancer—A. M. Olovnikov and V. S. Tsvetkov.	1426	102
Apparatus for Preparative Separation of Substances by Disk Electrophoresis in Polyacrylamide Gel—A. I. Gusev.	1429	104

(Contd.)

Available From Consultants Bureau

BYULLETEN' EKSPERIMENTAL'NOY BIOLOGIY I MEDITSINY
Vol 68, No 12, 1969

Engl./Russ.

INDEX

Author Index, Volumes 67-68, Numbers 1-12	1435
Table of Contents, Volumes 67-68, Numbers 1-12	1441

The Russian press date (podpisano k pechatu) of this issue was 11/14/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

ELECTRICAL ENGINEERING IN JAPAN

DENKI GAKKAI ZASSHI

VOLUME 89

1969

NUMBER 9

CONTENTS

	Page
T. Hino and M. Suzuki: Tracking Test for Organic Insulating Materials by Gas Analysis	1
F. Irie, K. Yamafuji and S. Sakamoto: Losses in Superconducting Magnets	7
H. Ogiwara: Voltage Distribution in the Channel of Segmented-Electrode Faraday MHD Generators	18
H. Matsuo, Y. Yunoki, T. Oshige and N. Mita: Impulse Discharge on Contaminated Surface .	26
M. Yamaguchi and H. Fujiwara: Analysis of Commutatorless Motors	35
K. Hasegawa and K. Watanabe: Computer-Aided Automated Design of Feedback Control Systems	44
H. Kayano and Y. Kitahama: Threshold Type Optronc A/D Converter	55
N. Tabata and M. Mori: Collection Efficiency of Electrostatic Air Filters	62
T. Tsuchiya, H. Sasajima and K. Tatsuguchi: Basic Characteristics of Series Commutator- less Motors	71
M. Ohta and S. Yamaguchi: A New Approach to the Statistical Linearization of Nonlinear Control Elements	77
Y. Sawada: Calculation of Radio Noise Level for the Design of AC Power Transmission Lines	86
K. Yoshida and M. Hayashi: The System Stability Controller of the Chubu Electric Power Co.	97
Y. Inagaki, N. Tsuchida and S. Nitta: Dielectric Breakdown Properties of Evaporated SiO Films	107
K. Minami, K. Tomida, T. Tsukishima and S. Takeda: Circularly Polarized Waves in a Waveguide Loaded with High-Density Magnetoplasma	113
T. Hosokawa, Y. Kondo and Y. Miyoshi: Prebreakdown Phenomena of Negative Point-to- Plane Air Gap	120

Available from Institute of Electrical and Electronics Engineers

ELECTRICAL ENGINEERING IN JAPAN

DENKI GAKKAI ZASSHI

1969

VOLUME 89

NUMBER 10

CONTENTS

	Page
Y. Ogawa: Feasible and Stable Regions in the Operation of a Power Reactor	1
S. Ihara and K. Kaiho: Distribution Electromagnetic Force in Air-Core Cylindrical Solenoid Windings	10
K. Ichikawa and K. Kanai: Application of Pontryagin's Maximum Principle to a Distributed Parameter System	19
E. Masada: Note to the Authors	28
K. Ichikawa and K. Kanai: Authors' Reply	28
T. Mine, T. Yamamoto, N. Yamamoto and Y. Baba: A Method of Measuring Impedance of Electrolytic Conductors	30
H. Mitera and K. Tottori: Potential Distribution in Oil Tanks during Oil Circulation	39
M. Nishimura, Y. Murakami, N. Sakuma and T. Kuroyama: A Pulsewidth-Controlled Cycloinverter	46
M. Akazaki and M. Hara: Effect of Aerosols on Impulse Breakdown Voltage	57
N. Takahashi: Eddy Current in a Solid Iron Core Facing an Air Gap	66

Available From Scripta Electronica

ELECTRONICS AND COMMUNICATIONS IN JAPAN

DENSHI TSUSHIN GAKKAI RONBUNSHI

1969

VOLUME 52

NUMBER 7

CONTENTS

Page

PART A

Wire Communication, Switching Practice, Transmission Lines, Electroacoustics,
Ultrasonics and Network Theory

CONTRIBUTED PAPERS

Shigeaki Mabuchi: Nonlinear Analysis of Transistorized LC Oscillator with Coupling Capacitor	1
Mitsutoshi Hatori and Yasuo Taki: Reduction of Systematic Jitter Accumulation by Means of Pattern Transformations	10

PART B

Radio Communication, Antennas, Wave Propagation, Microwaves, Millimeter Waves,
Quantum Devices, Electron Devices and Television

CONTRIBUTED PAPERS

Hiromu Fujioka, Fumihiro Nihei and Nobuaki Kumagai: Interaction of Plane Electromagnetic Waves with a Moving Compressible Plasma Fluid	19
Toshio Hosono, Takashi Hinata and Kohachi Yuda: Reflection of Electromagnetic Waves at the Boundary Surface Between Two Media in Relative Motion Perpendicular to the Plane of Incidence	27
Katsu Rokushima, Hiromasa Mori, Yasuo Fukushima and Masami Higashimura: Characteristics of Waveguide-Mounted Tunnel Diode Oscillators	36
Saburo Tazaki and Kazumi Yamashita: Pulse-Interval Modulation System	45
Ken-ichi Yokoto and Koichi Ota: Random Fluctuations of Laser Beam (6328 Å) Transmitted Through the Atmosphere	53
Yoshiyuki Naito, Hajime Matsumura, Eiichi Fujiwara and Kunihiro Suetake: Matching Frequency of Electromagnetic Wave Absorber Utilizing Ferrite	61
Toshio Nemoto: The Measurements of a Waveguide Joint Properties	68

PART C

Electronic Computers, Information Theory, Automatic Control, Electronic
Materials and Components, Instrumentation and Pattern Recognition

CONTRIBUTED PAPERS

Takeshi Marukawa: Measurement of Period and Velocity of Water Waves by High-Resolution Radar	77
Toru Kawata, Kozo Kinoshita and Hiroshi Ozaki: A Method for Fault Detection in Feedback Shift-Register Circuits	85
Masaharu Mizumoto, Junichi Toyoda and Kohkichi Tanaka: Some Considerations on Fuzzy Automata	93
Tatsuya Morita and Katsuhiko Fuji: Recognition System for Handwritten Letters Simulating Visual Nervous System	100

(Contd)

Available from Institute of Electrical and Electronics Engineers

DENSHI TSUSHIN GAKKAI RONBUNSHI

Vol 52, No 7, 1969

Akira Maruoka: On Tree Circuits of Flexible Logical Cells	109
Hisashi Mine and Hiroyuk Narihisa: A Boolean Algorithm for Solving Linear Programming Problems with Zero-One Variables	118
Makoto Ito, Yasuyoshi Inagaki and Teruo Fukumura: Synthesis of NAND Logical Networks	127
Tadahiro Ohmi and Shinya Hasuo: Diffusion Phenomena of Electrons in Many-Valley Semiconductors	137

Available from Institute of Electrical and Electronics Engineers

ELECTRONICS AND COMMUNICATIONS IN JAPAN

DENSHI TSUSHIN GAKKAI RONBUNSHI

1969

VOLUME 52

NUMBER 8

CONTENTS

Page

PART A

Wire Communication, Switching Practice, Transmission Lines, Electroacoustics,
Ultrasonics and Network Theory

CONTRIBUTED PAPERS

Yahiko Kambayashi and Shuzo Yajima: Observable Sequential Machines and Controllable Sequential Machines	1
Yoshihiro Iwadare: A Unified Treatment of Burst-Correcting Codes	12
Kiyoshi Hashimoto and Shuzo Saito: Speech Quality of PCM Transmission System	20
Kiyasu-Zen'iti and Tetsuya Miki: Quantization of Signals of Uniformly Distributed Amplitude and Maximally Wide Dynamic Range in PCM.	28

PART B

Radio Communication, Antennas, Wave Propagation, Microwaves, Millimeter Waves,
Quantum Devices, Electron Devices and Television

CONTRIBUTED PAPERS

Mitsuo Kawamura and Ichiro Uchizaki: Experimental Investigations of High-Perveance Electron Beam Extracted from Nonspherical Cathode	37
Hiromu Fujioka and Nobuaki Kumagai: Exact Analysis of Electromagnetic Fields in a Moving Conductive Medium	44
Hiroshi Shigesawa and Kei Takiyama: Approximated Radiation Pattern of Leaky Waveguides with Periodic Loading Slots.	49
Shuichi Itoh and Yasuo Taki: Optimization of Analog Feedback Communication System	58
Masamitsu Nakajima and Jun-ichi Ikenoue: An Analysis of Frequency Multiplication with Consideration of the Frequency Characteristic	68
Ichiro Yokoshima: An Estimation Method for the Noise Temperature of Microwave Standard Noise Sources.	76
Hiroyoshi Yajima and Tomoo Fujioka: Experimental Verification of Electron-Beam Noise Reduction in Low-Velocity Region	86
Munekazu Akao and Joji Hamasaki: A Quarter-Wave Coupled Band-Rejection Filter with Maximally Flat Pass-Band Characteristics	94

PART C

Electronic Computers, Information Theory, Automatic Control, Electronic
Materials and Components, Instrumentation and Pattern Recognition

CONTRIBUTED PAPERS

Hisashi Mine, Toshiharu Hasegawa, Yoshiaki Koga, Masaki Ideda and Takamasa Shintani: Construction and Analysis of a Tri-Stable Circuit and Its Application to Ternary Feedback Shift Register	103
Yuichi Kaname: Useful Evaluation Method for Qualities of Piezoelectric Ceramic Materials for Wave Filters	112

(Contd)

Available from Institute of Electrical and Electronics Engineers

DENSHI TSUSHIN GAKKAI RONBUNSHI
Vol 52, No 8, 1969

	Page
Atsuyuki Suzuki, Shoichi Noguchi and Juro Oizumi: The Capability of Boolean-Function Realization by the $(m + 1, 1)$ -Type Multistage Logical Networks	121
Masao Tanaka and Yasuro Nishimura: Electrical Properties of Evaporated Au-Ni-Cr Alloy Resistor Films	129
Tadao Ichikawa and Teruji Watanabe: Failure-Operable Redundant NAND Networks	135
Masakiyo Matsumura: Bias-Field Distribution of High-Power p-n-n ⁺ IMPATT Diodes . .	144
Mototaka Kamoshida and Takasi Okada: Platinum Silicide Contacts to Silicon Semiconductor Devices	152
ERRATA	161

Available from Institute of Electrical and Electronics Engineers

ELECTRONICS AND COMMUNICATIONS IN JAPAN

DENSHI TSUSHIN GAKKAI RONBUNSHI

1969

VOLUME 52

NUMBER 9

CONTENTS

Page

PART A

Wire Communication, Switching Practice, Transmission Lines, Electroacoustics,
Ultrasonics and Network Theory

CONTRIBUTED PAPERS

Mitsuo Teramoto: RC Active Transfer Network Synthesis Using Negative-Impedance Converter	1
S. Hashimoto and S. Saito: Analysis of Signal Imitation and Optimum Arrangement of Signaling Frequencies for Voice-Frequency Signaling System	6
Masayasu Hata and Tsuneaki Iwano: Direct Regenerative Phase-Locked Loop: A New Carrier Synchronization System	15
Junji Tada and Risaburo Sato: Active Lines for Bipolar Pulse Transmission Systems	25
Zenichi Kitamura, Hiroaki Terada, Koichi Omura and Naoki Okuda: Characteristics of a Stripline with Skin Effect.	34

PART B

Radio Communication, Antennas, Wave Propagation, Microwaves, Millimeter Waves,
Quantum Devices, Electron Devices and Television

CONTRIBUTED PAPERS

Masaaki Imai, Michio Suzuki and Tadashi Matsumoto: Some Considerations of a Lenslike Medium with Aberration	41
Motoaki Ohkubo: The Incidence of Electromagnetic Waves at the Boundary of a Semi-Infinite Anisotropic Plasma	47
Akira Noguchi and Masatsugu Kobayashi: Space-Charge Waves in Electron Beams with Velocity Distribution.	53
Hiroo Isono, Naoki Inagaki and Toshio Sekiguchi: Synthesis of Vertically Polarized Omnidirectional Pattern with Cascade Dipole Antennas on Conducting Cylinder	60
Reiichi Sasaki and Yoshitomi Nagaoka: Analysis and Synthesis of Low-Pass Filter with Boosted Frequency Characteristics in Its Pass Band	69
Hiroichi Fujita, Hiroshi Muramatsu and Tomoo Yanase: Reflection and Transmission of a Plane Electromagnetic Wave at a Moving Boundary	78
Hiroshi Ogawa and Yoichi Fujii: Cutoff Frequency of the Cross-Field Photomultiplier.	86
Toshitaka Kojima and Kiyoyasu Itakura: Radiation from Magnetic Line Source in a Moving Isotropic Plasma	89
Kazuaki Takao, Yasuhiro Nakadan and Yasuyuki Abe: Experimental Comparison between Tracking Systems for Artificial Satellites	94
Toshitada Doi and Risaburo Sato: Pattern Synthesis and Realization of Circular Distributed Current Source	100

PART C

Electronic Computers, Information Theory, Automatic Control, Electronic
Materials and Components, Instrumentation and Pattern Recognition

CONTRIBUTED PAPERS

Tadahiro Kitahashi, Hirosato Nomura, Yoshikazu Tezuka and Yoshihiro Kasahara: The Orthogonal Expansion of Multi-Valued Functions and Its Application to Realization with Threshold Elements	108
---	-----

(Contd.)

Available From Scripta Electronica

DENSHI TSUSHIN GAKKAI RONBUNSHI
Vol 52, No 9, 1969

	Page
Tsutomu Hosaka and Toshio Matsunaga: On the Determination of Standard Circuit Card Types.	117
Yasuo Kadokawa and Jouji Suzuki: A Simple Calculation Method for the Vocal-Tract Configuration from the First Three Formant Frequencies.	123
Seiichi Noguchi and Hiroyuki Morimura: Solid-State Inductance Using Thermal Effect and Its Application.	131
Masateru Harao, Atsuyuki Suzuki, Shoichi Noguchi and Juro Oizumi: Synthesis of Multi-stage Logical Network with Multiple Outputs.	138
Hiroyuki Tango and Jun-ichi Nishizawa: Drain Saturation Current of Junction Field-Effect Transistor and Potential Field and Carrier Distribution in the Channel.	150
Seishi Nishikawa and Toshio Utsunomiya: A Multiple-Wiring Algorithm.	159
Mitsuhiko Kobayashi, Azuma Shimizu and Tetsuro Ishida: Breakdown Voltage of Germanium Hyper-Abrupt Junction.	167
Kenji Onaga: A Theory of Search.	176

Available From Scripta Electronica

DOKLADY, EARTH SCIENCE SECTIONS

Translations from *Doklady Akademii Nauk SSSR* include nine sections published in the original journal as follows:

geology lithology hydrogeology
geophysics mineralogy paleontology
geochemistry oceanology petrography

DOKLADY ESS reports the results of basic research in geology in the U.S.S.R., within six months from the date the original is distributed. Doklady ESS is published bimonthly. Accurate and faithful translation is intended so that views expressed be those of the original authors and not those of the translators or the American Geological Institute. The journal is translated on the advice of the AGI Translations Committee and the liaison representatives of AGI member societies with a supporting grant from the National Science Foundation.

AMERICAN GEOLOGICAL INSTITUTE

LINN HOOVER, *Executive Director*

STAFF

EDWARD T. BUTLER, JR., *Manager
Translations Program*

V. P. SOKOLOFF, *Translations and
Review Editor*

WENDY COOKSON, *Editor*

NANCY DUTRO, *Associate Editor*

TRANSLATIONS COMMITTEE

JOHN LEMISH, *Chairman*

EUGENE A. ALEXANDROV

DOUGLAS C. ALVERSON

EARL INGERSON

LIAISON REPRESENTATIVES

MICHAEL FLEISCHER, *MSA*

MARTIN F. GLAESSNER, *Australia*

ALFRED J. HERMONT, *SExG*

BENJAMIN F. LEONARD, *SEcG*

ARTHUR A. MEYERHOFF, *AAPG*

SIEMON WM. MULLER, *PS*

ROBERT I. TILLING, *GS*

FRANK C. WHITMORE, *SVP*

Subscription rate:

\$95 per year; \$18 per issue

Postage:

\$1.25 additional foreign.

(Application to mail at second-class postage rates is pending at Washington, D. C.).

(NOTE: Claims for free replacement copies will not be honored when the request is received more than sixty days after the mailing date or because of subscriber's failure to notify the Institute of a change in address.)

Send inquiries to:

AGI Subscription Manager
2201 M Street NW
Washington, D. C. 20037

DOKLADY of the ACADEMY of SCIENCES of the U.S.S.R. EARTH SCIENCE SECTIONS

Copyright © 1969 American Geological Institute.

Vol. 186, (Russian original dated February
Nos. 1-6 March-April 1969) 1970

CONTENTS

	Page
GEOPHYSICS	
A NUMERICAL METHOD FOR DETERMINING THE AVERAGE CHARACTERISTICS OF THE CRUST FROM SEISMOGRAMS OF REMOTE EARTHQUAKES, by A. S. Alekseyev and G. M. Tsibul'chik	1
PROPAGATION VELOCITIES OF LONGITUDINAL SEISMIC WAVES ALONG THE MOHOROVIČIĆ SURFACE IN THE USSR, by N. A. Belyayevskiy and V. Z. Ryaboy.	4
MICROSTRUCTURE OF THE LONGITUDINAL WAVE TRAVEL-TIME CURVE, by L. P. Vinnik and A. V. Nikolayev	7
PULSATIONS OF THE P ₁ TYPE, THE AURORAL OVAL AND THE DENSITY OF PLASMA IN THE MAGNETOSPHERE, by V. A. Troitskaya, Ya. I. Fel'dshteyn and R. V. Shchepetnov.	10
FIELD STRUCTURE OF A TROPICAL HURRICANE, by V. V. Shuleykin	12
HEAT OUTPUT OF HYDROTHERMAL SYSTEMS AND ACTIVE VOLCANOES, by G. N. Kovalev	15
LONG-TERM MEASUREMENTS OF THE VARIABILITY OF PHYSICAL FIELDS OVER OCEANIC POLYGONS AS A NEW STAGE IN THE STUDY OF THE OCEAN, by V. B. Shtokman (deceased), M. N. Koshlyakov, R. V. Ozmidov, L. M. Fomin and A. D. Yampol'skiy	17
THE CONVERSE PROBLEM OF MAGNETIC PROSPECTING, by V. A. Filatov	20
MEASUREMENT OF HEAT FLOW ACROSS THE ARCTIC OCEAN FLOOR IN THE VICINITY OF THE MEDIAN HACKEL RIDGE, by Ye. A. Lyubimova, G. A. Tomara, R. M. Dementitskaya and A. M. Karasik	22
GEOLOGY	
NEW DATA ON PRECAMBRIAN STRATIGRAPHY OF THE KHAMAR DABAN, by A. L. Dodin and V. K. Man'kovskiy	25

(Contd)

Available From AGI

DOKLADY AKADEMIY NAUK SSSR
Vol 186, No 1-6, Feb 1970

	Page
RELATIONSHIP BETWEEN EPIARCHEAN RESIDUUM AND ROCKS OF THE PLATFORM COVER ON THE WEST FLANK OF THE ANABAR SHIELD, by A. I. Zabyaka	28
FACTORS IN THE GENESIS OF HYDROTHERMAL ORE DEPOSITS, by S. N. Ivanov	30
THE PRINCIPAL STRUCTURAL FEATURES OF THE KOPET DAG MOLASSE, by L. M. Rastsvetayev	33
A UNIFIED GEOHISTORIC APPROACH TO THE STUDY OF THE PRECAMBRIAN AND POST-PRECAMBRIAN, by A. V. Sidorenko	36
AN OVERTHRUST SHEET ON THE CHERNYSHEV RIDGE, NORTH URAL REGION, by N. I. Timonin and G. M. Firer	39
HYPOGENE ORE ASSOCIATIONS OF THE DONETS BASIN, by V. I. Skarzhinskiy	41
A NEW SCHEME FOR THE HOLOCENE STRATIGRAPHY AND PALEOGEOGRAPHY OF BYELORUSSIA, by L. N. Voznyachuk, O. P. Leonovich and K. I. Lukashev.	44
ORE FRAGMENTS FROM CAP ROCKS OF THE KUSMURUN AND AKBASTAU PYRITE DEPOSITS, CENTRAL KAZAKHSTAN, by A. D. Kaipov	47
MECHANISM OF EVOLUTION OF MARGINAL CROSS STRUCTURES IN THE EASTERN SIBERIAN PLATFORM AND ROLE OF DISPLACEMENTS IN THEIR FORMATION, by Ye. S. Kutepnikov	50
THE EVOLUTION OF VOLCANISM IN THE SIKHOTE ALIN FOLD ZONE AND THE AREA ADJACENT TO IT ON THE WEST, by V. O. Solov'yev	53
LOW VELOCITY OF LONGITUDINAL SEISMIC WAVES IN THE WEAKLY SEISMIC PART OF THE KURILE-KAMCHATKA FOCAL ZONE, by R. Z. Tarakanov and Kim Chun Un.	56
A METHOD FOR FINDING THE STAGE OF EVOLUTION OF LOCAL STRUCTURES, by I. G. Baranov, V. I. Galitskiy and A. K. Tsypko	59
SARMATIAN LITHOLOGY OF THE SIVASH REGION, by L. S. Belokryz	60
A PALEOPALYNOLOGIC DESCRIPTION OF THE KEY UPPER CRETACEOUS SECTION IN THE NAYBA RIVER BASIN, SOUTHERN SAKHALIN, by V. S. Budrin	64
A FIND OF PROBLEMATIC HIEROGLYPHS (BIOGLYPHS) IN SHOKSHINSKIY QUARTZITE IN THE SOUTHWEST ONEGA REGION, by D. I. Garbar	66
ALBIAN-CENOMANIAN BOUNDARY OF THE SOUTHWESTERN SPURS OF THE GISSAR RANGE, by Kh. Kb. Mirkamalov and M. E. Egamberdiyev	69
THE ORIGIN OF ECLOGITE, by O. M. Rozen	71
MINUTE MUD VOLCANOES OF THE GOBI, by A. V. Zuyev and A. A. Khrapov	74
CRUSTAL STRUCTURE IN THE WESTERN BLACK SEA, by Ya. P. Malovitskiy, Yu. P. Neprochnov, I. A. Garkalenko, Ye. A. Starshinova, K. G. Milashina, M. Ya. Komornaya, L. P. Rykunov, B. V. Kholopov and V. V. Sedov	77
THE STRUCTURE OF THE CENTRAL URALS, by B. P. Krotov	81
NEW DATA ON THE VOLCANISM IN THE WENDIAN OF THE IRKUTSK AMPHITHEATER, by I. Ye. Postnikova and D. D. Kotelnikov	83
DISLOCATIONS ASSOCIATED WITH THE GYPSUM-ANHYDRITE FORMATION IN THE WEST VERKHNOYANSK REGION, by I. M. Sborshchikov and L. M. Natapov	86
RELATION BETWEEN THE METAMORPHIC GRADE OF COAL AND THE DENSITY OF CARBONIFEROUS HOST DEPOSITS IN THE WESTERN DONBAS, by Yu. I. Belotserkovets	90
GEOLOGY OF SUBVOLCANIC FORMATIONS OF THE OKHOTSK-CHUKOTKA VOLCANIC BELT, by R. A. Yerebin and V. V. Yarmolyuk	92
GEOMORPHOLOGIC ASPECTS OF THE STUDY OF PHYSICOMECHANICAL PROPERTIES OF BOTTOM DEPOSITS, by A. V. Il'in	94
UPPER PLIOCENE OF THE NORTH SHORES OF THE ARAL SEA, by Ye. B. Levina, A. N. Silyusarev, S. O. Khondkarian and Yu. G. Chel'tsov	97

MINERALOGY

THE NATURE OF TRAPPING AND LUMINESCENCE CENTERS IN QUARTZ AND NEPHELINE, by V. S. Lyashkov, I. E. Sakhu, A. I. Serebrennikov and V. P. Solntsev	100
EFFECT OF ALKALINITY AND SILICIC ACIDITY ON THE COMPOSITION OF MAGMATIC CLINOPYROXENE, by A. M. Vilenskiy and A. N. Zedgenizov	103
IMMISCIBILITY OF THE NATURAL PYROXENES DIOPSIDE AND FASSÄITE AND THE CRITERION FOR IT, by I. V. Ginzburg	106
FORM OF OCCURRENCE OF ZINC IN TETRAHEDRITE, by R. L. Dunin-Barkovskiy, G. P. Kliyentova and V. S. Popov	110
STUDY OF THE COMPOSITION OF NATIVE GOLD BY X-RAY SPECTRAL MICROANALYSIS, by M. S. Sakharova	112
COMPOSITION OF BRUCITE IN SERPENTINITES AND THE PROCEDURE FOR IDENTIFYING IT, by D. S. Shteynberg and I. S. Chashchukhin	115
BAVENITE FROM PRECAMBRIAN GRANITE-PEGMATITE OF THE UKRAINE, by Yu. Yu. Yurk, Ye. P. Gurov and Ye. Ya. Marchenko	119
IMPORTANCE OF WATER IN CORDIERITE IN NATURAL MINEROGENESIS, by G. G. Lepesin	122

(Contd)

Available From The American Geological Institute

DOKLADY AKADEMIY NAUK SSSR
Vol 186, No 1-6, Feb 1970

	Page
THE REPLACEMENT OF YTTRITANITE BY BETAFITE, by Ye. Ya. Marchenko, V. A. Khvostova and A. I. Chashka	125
MICROHARDNESS OF MAGNETITE AND TITANOMAGNETITE FROM THE URALS, by V. G. Foninykh	128
NEW DATA ON THE SAPPHIRINE ASSOCIATIONS OF THE ALDAN SHIELD, by A. I. Chekirda and A. R. Entin	131
STEPHANITE FROM A GOLD-SILVER ORE OCCURRENCE IN THE NORTHEASTERN USSR, by P. V. Babkin, R. A. Yerebin and T. I. Trenina	135
A NEW MERCURY-BEARING SPECIES OF SPHALERITE, by V. I. Vasil'yev and Yu. G. Lavrent'yev	137
AN ORDERED TRIOCTAHEDRAL MIXED-LAYER FORM WITH CHLORITE AND VERMICULITE PACKETS, by D. P. Gradusov	140
TAZHERANITE, A NEW CALCIUM-TITANIUM-ZIRCONIUM MINERAL, by A. A. Konev, Z. F. Ushchapovskaya, A. A. Kashayev and V. S. Lebedeva	142
PHASE TRANSITIONS IN BORNITE DURING ELECTRON-PROBE MICROANALYSIS, by Ye. A. Kosyak	145
BLACK ORGANIC MATTER-BEARING OPAL FROM VOLYN PEGMATITE, by G. M. Gigashvili and V. A. Kalyuzhnyy	148
INCORPORATION OF ISOMORPHOUS IMPURITIES INTO THE VARIOUS GROWTH PYRAMIDS OF CRYSTALS, by A. L. Kukuy and V. L. Parkhomovskiy	152
THE THERMAL STABILITY OF PENTLANDITE, by A. P. Likhachev and Yu. A. Brauer ..	154
A STUDY OF THE BINARY SECTION SELLAITE-KOTOITE IN THE $MgO-MgF_2-B_2O_3$ SYSTEM, by A. P. Grigor'yev and A. A. Brovkin	157
PETROGRAPHY	
ORIGIN OF ECLOGITE IN THE KOKCHETAV BLOCK, by L. L. Perchuk, F. A. Letnikov, N. G. Udovkina, V. I. Lennykh and I. A. Mudrov	161
TWO GENERATIONS OF INCLUSIONS OF MOLTEN MATTER IN ROCK-FORMING MINERALS OF ODINITE, by T. Yu. Bazarova and V. S. Sobolev	164
THERMOLUMINESCENCE OF ROCKS FROM A KAZAKHSTAN RARE-METAL DEPOSIT, AS RELATED TO ITS EPIGENETIC MINERALIZATION, by A. P. Gulyayev, S. I. Izyumskiy and L. A. Miroshnichenko	165
ORIGIN OF THE GNEISSOSITY IN THE PANGAZ DZHILGA QUARTZ DIORITE PLUTON, EASTERN PAMIRS, AND THE MECHANISM OF ITS EVOLUTION, by R. M. Slobodskoy	168
TITANIUM CONTENT OF AMPHIBOLE AND BIOTITE FROM GRANTOIDS AS AN INDICATOR OF THE CONDITIONS UNDER WHICH THEY FORMED, by I. N. Bushlyakov ..	171
AMPHIBOLIZATION OF MELANOCRATIC VEIN ROCKS AT THE KOCHKAR' DEPOSIT, SOUTHERN URALS, by A. I. Grabezhev	174
AN ELUVIAL GOLD PLACER AT ELEKTRICHESKIY BALD PEAK, VITIM-PATOM UPLANDS, by M. M. Gapeyeva and A. Ye. Gapon	177
PETROCHEMICAL FEATURES OF THOLEIITIC BASALT OF THE VORONEZH ANTECLISE, by V. S. Gladkikh	179
A NEW TYPE OF IGNEOUS ALKALIC VEIN ROCK OF CARBONATE-SILICATE COMPOSITION AND ITS PETROLOGIC SIGNIFICANCE, by A. V. Lapin and A. G. Zhabin	182
DIFFUSIVE METASOMATISM IN REGIONAL METAMORPHISM, by G. G. Lepezin	186
THE STAUROLITE-GARNET THERMOMETER, by L. L. Perchuk	189
CONTACT METAMORPHISM UNDER INTRUSIVE PRESSURE, by V. V. Reverdatto and R. M. Slobodskoy	192
MAGNESIUM IN MAGNETITE FROM URAL GRANTOIDS, by G. B. Fershtater, N. A. Yarosh and L. I. Metlikh	195
LITHOLOGY	
INVESTIGATION OF CIMMERIAN CLAY FROM THE KAMYSH-BURUN BASIN, KERCH' PENINSULA, BY INFRARED SPECTROSCOPY, by V. V. Gusev, A. I. Boldyrev and Yu. M. Kalinina	199
STRUCTURALLY ORDERED KAOLINITE IN MARINE SEDIMENTS OF THE POLTAVA SERIES IN THE DNIEPER-DONETS DEPRESSION, by M. G. Berger	203
TIME AND LENGTH OF THE OIL POOL-FORMING PROCESS AS DETERMINED FROM CLAY MINERALS, by I. N. Ushatinskiy and N. S. Tsepelev	206
GEOCHEMISTRY	
OVERALL ESTIMATES OF THE AVERAGE TRACE-ELEMENT CONTENT OF PRINCIPAL ORE MINERALS, by V. V. Ivanov	210
ACID-BASE REACTION OF CONSTITUENTS DURING THE EVOLUTION OF DIFFERENTIATED EXTRUSIVE BASALT SERIES, by S. M. Kravchenko	211

(Contd)

Available From The American Geological Institute

DOKLADY AKADEMIY NAUK SSSR
Vol 186, No 1-6, Feb 1970

	Page
PROBLEM OF LIQUATION IN MAGMA, by B. N. Melent'yev and L. M. Delitsyn	215
TWO MODES OF ORIGIN OF SEDIMENTARY SELENIUM CONCENTRATIONS, by V. P. Vorob'yev	218
GEOCHEMISTRY OF RARE ELEMENTS IN SIBERIAN PLATFORM TRAPS AS RELATED TO THE GENESIS OF COPPER-NICKEL DEPOSITS, by A. I. Al'mukhamedov	221
MELTING OF ROCKS OF THE CALCALKALIC SERIES AT HIGH PRESSURES AND TEM- PERATURES AT PH_2O : P_{heat} (PICRITE, OLIVINE BASALT, THOLEIITE AND ANDESITE-BASALT), by Yu. S. Genshaft, A. Ya. Saltykovskiy, Yu. M. Sheynmann and Yu. N. Ryabinin	224
THE DISTRIBUTION OF IRON, MANGANESE, COPPER AND MINOR ELEMENTS IN DE- VONIAN CARBONATE ROCKS OF THE MURUNTAU, CENTRAL KYZYL KUM, by Ye. L. Abramovich	227
THE LANTHANIDE COMPOSITION OF PHOSPHORITES, by V. Z. Bliskovskiy, D. A. Minoyev and V. N. Kholodov	230
RARE ELEMENTS IN GRANITE RESIDUUM OF THE AZOV REGION, by T. F. Boyko	233
VARIATION IN CHEMICAL AND MINERAL COMPOSITION OF CONCRETIONS IN THE LOWER AND MIDDLE CARBONIFEROUS OF THE DONBAS, by P. V. Zaritskiy	236
MASS TRANSFER BETWEEN DIFFERENTIATED TRAP INTRUSIONS AND THEIR HOST ROCKS, by A. I. Arkhipova and I. A. Natorkhin	239
A FIND OF DIAMONDS IN ANOTHER METEORITE—THE NORTH HAIG UREILITE, by G. P. Vdovykin	242
ABSOLUTE AGE OF GEOLOGIC FORMATIONS OF THE IL'MEN MOUNTAINS, CENTRAL URALS, by V. A. Dunayev, L. N. Ovchinnikov and A. A. Krasnobayev	245
REACTIONS IN SYSTEMS ALBITE GLASS-SODIUM FLUORIDE AND ALBITE GLASS- CALCIUM FLUORIDE, by V. K. Karzhavin	248
DIAMONDS IN A NEW METEORITE—THE DINGO PUP DONGA UREILITE, by G. P. Vdovykin	250
PALEONTOLOGY	
CASTS OF THE ADDUCTOR OF HEALDIIDAE (OSTRACODA) FROM THE MIDDLE TRI- ASSIC OF THE SOUTH MARITIME TERRITORY, by M. N. Gramm	254
A NEW FIND OF CEPHALOPODS IN THE MIDDLE CAMBRIAN OF CZECHOSLOVAKIA, by A. G. Vologdin and F. A. Zhuravleva	257
ALGAE OF THE FAMILY GLOEOCAPSACEAE IN THE PRECAMBRIAN OF BATENEV RIDGE, by A. G. Vologdin and N. A. Drozdova	260

Available From The American Geological Institute

DOKLADY, EARTH SCIENCE SECTIONS

Translations from *Doklady Akademii Nauk SSSR* include nine sections published in the original journal as follows:

geology lithology hydrogeology
geophysics mineralogy paleontology
geochemistry oceanology petrography

DOKLADY ESS reports the results of basic research in geology in the U.S.S.R., within six months from the date the original is distributed. Doklady ESS is published bimonthly. Accurate and faithful translation is intended so that views expressed be those of the original authors and not those of the translators or the American Geological Institute. The journal is translated on the advice of the AGI Translations Committee and the liaison representatives of AGI member societies with a supporting grant from the National Science Foundation.

AMERICAN GEOLOGICAL INSTITUTE

LINN HOOVER, *Executive Director*

STAFF

EDWARD T. BUTLER, JR., *Manager
Translations Program*

V. P. SOKOLOFF, *Translations and
Review Editor*

WENDY COOKSON, *Editor*

NANCY DUTRO, *Associate Editor*

TRANSLATIONS COMMITTEE

JOHN LEMISH, *Chairman*

EUGENE A. ALEXANDROV

DOUGLAS C. ALVERSON

EARL INGERSON

LIAISON REPRESENTATIVES

MICHAEL FLEISCHER, *MSA*

MARTIN F. GLAESSNER, *Australia*

ALFRED J. HERMONT, *SExG*

BENJAMIN F. LEONARD, *SEcG*

ARTHUR A. MEYERHOFF, *AAPG*

SIEMON WM. MULLER, *PS*

ROBERT I. TILLING, *GS*

FRANK C. WHITMORE, *SVP*

Subscription rate:

\$95 per year; \$18 per issue

Postage:

\$1.25 additional foreign.

(Application to mail at second-class postage rates is pending at Washington, D. C.).

(NOTE: Claims for free replacement copies will not be honored when the request is received more than sixty days after the mailing date or because of subscriber's failure to notify the Institute of a change in address.)
Send inquiries to:

AGI

Subscription Manager
2201 M Street NW
Washington, D. C. 20037

DOKLADY of the ACADEMY of SCIENCES of the U.S.S.R. EARTH SCIENCE SECTIONS

Copyright © 1969 American Geological Institute.

ERRATUM

The cover and the table of contents of Doklady of the Academy of Sciences U.S.S.R., Volume 186, 1969, should read "Russian original dated May-June, 1969" instead of "Russian original dated March-April, 1969".

Vol. 188, Nos. 1-6	(Russian original dated September-October 1969)	April 1970
-----------------------	--	---------------

CONTENTS

	Page
GEOPHYSICS	
PROPERTIES OF SOUND SIGNALS REFLECTED BY THE OCEAN SURFACE, by Yu. Yu. Zhitkovskiy ...	1
THE EVOLUTION OF FUSION ZONES DURING THE THERMAL HISTORY OF THE EARTH, by A. N. Tikhonov, Ye. A. Lyubimova and V. K. Vlasov ...	4
POLAR TIDE IN THE OCEAN, by E. I. Sarukhanyan ...	7
ELECTRIC FIELDS IN THE MAGNETOSPHERE OF THE EARTH, B. A. Tverskoy	10
SECULAR VARIATIONS IN GRAVITY ON THE RUSSIAN PLATFORM, by A. Sh. Faytel'son	13
A METHOD FOR ESTIMATING THE SUPERSATU- RATION ACCOMPANYING FORMATION OF THE LIQUID PHASE IN CLOUDS, by E. L. Aleksandrov and Yu. S. Sedunov	15
DETERMINATION OF GEOPHYSICAL PARAMETERS FROM DATA ON THERMALLY-INDUCED RADIOEMISSION OBTAINED WITH THE "KOSMOS 243" SATELLITE, by A. Ye. Basharinov, A. S. Gurvich and S. T. Yegorov	18
RELATIONSHIP BETWEEN ABSOLUTE ATTENU- ATION OF LASER BEAM INTENSITY AND THE CONCENTRATION OF DROPLETS IN MISTS, by M. A. Kolosov, L. V. Fedorova and R. A. Shirey	21
GEOLOGY	
EARLY VISEAN PALEOGEOGRAPHY OF THE NORTH- EAST EUROPEAN PART OF THE USSR, by L. N. Belyakov	25
NEW DATA ON THE AGE OF THE LOVOZERO SEDI- MENTARY VOLCANIC SUITE, KOLA PENINSULA, by I. V. Bussen, N. M. Petrosyan and Ya. A. Sakharov	27

Available From AGI

(Contd)

	Page
MAIN FACTORS WHICH HAVE DETERMINED THE COMPOSITION OF SANDS OF THE TRANS- UNGUZHIAN KARA KUM, by A. B. Vistellus and M. A. Romanova	30
A FIND OF FOSSILS IN GRANITE OF THE CENTRAL URALS, by N. P. Malakhova and L. N. Ovchinnikov	33
NEW DATA ON THE JATULIAN OF EASTERN KARELIA, by A. V. Pekurov	36
QUANTITATIVE TECTONICS, by A. I. Rybin	39
STRATIGRAPHY OF THE KARELIDES IN THE NORTHWESTERN PART OF THE KOLA PENINSULA, by S. N. Suslova	42
THE RIPHEAN OF THE OMOLON BLOCK, by R. S. Furdy	45
FLUCTUATIONS OF LAKE LEVELS IN NORTHWESTERN EUROPEAN USSR IN THE MIDDLE AND LATE HOLOCENE, by P. M. Dolukhanov, G. M. Levkovskaya, Ye. N. Romanova and A. A. Sementsov	47
THE LOWER PALEOCENE IN THE NORTHWEST OF THE BLACK SEA REGION OF THE UKRAINE, by I. D. Konenkova	49
OPTIMUM DEPTHS FOR THE FORMATION OF OIL IN THE TERRIGENOUS JURASSIC IN EASTERN CISCAUCASIA, by A. I. Konyukhov and G. I. Teodorovich	50
TECTONIC ELEMENTS OF THE BASEMENT OF THE EAST EUROPEAN PLATFORM, by A. S. Novikova	53
NEW FINDS OF DIPNOI IN THE SECTION OF THE BOL'SHOYE BOGDO MOUNTAIN, by S. P. Rykov and M. G. Minikh	55
EVOLUTION OF THE CHINGIZ AND ARKALYK ANTICLINORIA, EASTERN KAZAKHSTAN, IN LATE CAMBRIAN TO MIDDLE ORDOVICIAN TIME, by S. G. Samygin, V. I. Titov, L. N. Klenina, N. K. Ivshin and M. A. Orenburgskiy	57
FLUORITE DEPOSITS AS INDICATORS OF TECTONOMAGMATIC PROCESSES, by A. D. Shcheglov	60
VOLCANIC SEDIMENTARY HORIZONS OF THE REDKINO SUITE, VALDAY SERIES, by Ye. M. Aksenov and S. A. Volkova	62
EFFECT OF NEOTECTONICS ON THE SECONDARY ZONING OF GOLD DEPOSITS, by M. N. Al'bov and N. V. Nesterov	65
THE STRUCTURAL OCCURRENCE OF SOME OUTCROPS OF LOWER AND MIDDLE PALEO- ZOIC REEF LIMESTONE IN THE SOUTHERN URALS, by M. M. Kamaletdinov, T. T. Kazantseva and Yu. V. Kazantsev	67
NATURE OF CARBONATITE AT THE EAST FLANK OF THE ANABAR ARCH, by V. K. Marshintsev and G. D. Balakshin	70
AGE OF THE BEKE SUITE IN THE CHU-ILI MOUNTAINS, by N. F. Mikhaylova and D. T. Tsay	73
PRINCIPAL MORPHOLOGIC AND GENETIC TYPES OF FOSSIL REEFS IN THE SOUTH- EASTERN RUSSIAN PLATFORM (FROM DEEP DRILLING AND GEOPHYSICAL DATA), by F. I. Khat'yanov	74
NEW DATA ON PALEOCENE NUMMULITIES OF THE TADZHIK DEPRESSION, by A. A. Ashurov and N. N. Barkhatova	77
THE STRESS PATTERNS IN FOLDS DUE TO AXIAL COMPRESSION, by P. M. Bondarenko and I. V. Luchitskiy	79
THE PALEOGENE-NEOGENE BOUNDARY IN THE BLACK SEADEPRESSION, by A. A. Veselov, Ye. Ya. Krayeva and N. A. Shchekina	81
BURIED RELIEF AT THE BOTTOM OF THE VOLHYNIA SERIES IN BELORUSSIA (UPPER PRECAMBRIAN), by I. A. Kozhemyakina and N. M. Chumakov	84
THE CEMENTATION ZONE FORMED DURING OXIDATION OF PRECAMBRIAN FERRUGINOUS QUARTZITE, by N. A. Kornilov	87
AGE OF GREENSTONE METAMORPHISM AND SULFIDE MINERALIZATION IN THE SOUTH- ERN URALS, by V. A. Prokin and A. A. Zakharova	91
ARCHEAN AGE OF THE OLDEST ROCKS OF THE ALDAN COMPLEX, by V. A. Rudnik, E. B. Sobotovitch and V. M. Terent'yev	93
GOLD-ORE ASSOCIATIONS OF THE NORTHEASTERN USSR, by N. A. Shilo, A. A. Sidorov, V. I. Nayborodin and V. I. Goncharov	97
THE TARN'YERSKOYE PYRITE DEPOSIT AND PROBLEMS OF ITS ORIGIN, by N. I. Der'yabin	100
RELATIONSHIP OF SECONDARY QUARTZITES TO VOLCANIC AND PLUTONIC FACIES, by Yu. P. Masurenkov and O. N. Yegorov	102
A NEW APPROACH TO THE INTERPRETATION OF DEEP SEISMIC SOUNDING DATA, AS EXEMPLIFIED BY ANALYSIS OF DATA FROM THE BOL'SHOY KARATAU DISTRICT, by T. I. Oblogina, V. B. Piyp, Yu. Ya. Vashchilov and N. Sh. Kambarov	106
NEW DATA ON THE WENDIAN COMPLEX OF THE VOLGA-URAL REGION, by I. Ye. Postnikova and E. A. Revenko	107
STRUCTURAL FACIES OF THE KARAGASSKAYA AND OSELOCHNAYA SUITES IN THE NORTHEAST SAYAN REGION, by N. N. Razumovskaya and B. M. Frolov	109

(Contd)

Available From The American Geological Institute

DOKLADY AKADEMIY NAUK SSSR
Vol 188, No 1-6, Apr 1970

	Page
OLD KIMBERLITE RESIDUUM OF THE 23RD SOVIET COMMUNIST PARTY CONGRESS PIPE, YAKUTIA, by I.S. Rozhkov, Yu.M. Mel'nik and A.D. Kharkiv	112
A POSSIBLE MECHANISM FOR FORMATION OF MAGMA CHAMBERS IN THE CRUST AND THE UPPER MANTLE, by V.V. Velinskiy, V.G. Melamed and V.N. Sharapov	115
ZONING IN THE DISTRIBUTION OF PLEISTOCENE MOLLUSKS OF THE UKRAINE, N.A. Kunitsa	118
AGE OF GOLD MINERALIZATION IN NORTHERN KAZAKHSTAN, by G.N. Naz'mova and Yu.S. Shalayev	120
MINERALIZED EXPLOSION BRECCIAS OF CRYPTOVOLCANIC SYSTEMS, by N.A. Fogel'- man	121
MINERALOGY	
PHYSICOCHEMICAL CONDITIONS DURING FORMATION OF RARE-METAL PEGMATITE OF THE SODIUM-LITHIUM TYPE, by L.Sh. Bazarov and I.V. Motorina	124
TRICLINICITY OF POTASSIC FELDSPAR AS ONE INDICATION OF THE DEPTH OF FORMA- TION OF HYPOGENE ORE DEPOSITS, by A.I. Grabezhev and B.A. Yunkov	127
CONDITIONS DURING FORMATION OF CHLORITOID AND STAUROLITE IN METAPELITE OF THE PATOM UPLANDS, by B.V. Petrov	130
OMPHACITE FROM METASOMATITES OF THE FRONT RANGE OF THE CAUCASUS, by G.D. Afanas'yev, A.I. Guseva, V.V. Plashko and G.A. Sidorenko	133
CRYSTAL STRUCTURE OF LITHIUM-BEARING BERYL, by V.V. Bakakin, G.M. Rylov and N.V. Belov	136
ZONING AND COBALT CONTENT OF PYRITE CRYSTALS, by T.A. Velikoborets and N.V. Korolev	139
THE REASON FOR THE WIDESPREAD OCCURRENCE OF OCTAHEDRAL PACKING OF MONO- AND DIVALENT ELEMENTS IN COMPOUNDS CONTAINING ELEMENTS OF THE SIXTH AND SEVENTH GROUPS, by V.I. Lebedev	143
A FIND OF GARRONITE IN THE USSR, by G.D. Feoktistov, Z.F. Ushchapovskaya and T.A. Lakhno	146
LUMINESCENCE OF SMALL DIAMONDS FROM SANDY SEDIMENTS OF THE UKRAINE, by G.K. Yeremenko and Yu.A. Polkanov	149
A FIND OF BROMELLITE IN THE USSR, by L.V. Klement'yeva	152
POTASSISODIC FELDSPAR IN PHENOCRYSTS OF PORPHYRITIC ROCKS FROM EASTERN TRANSBAIKAL, by K.V. Prokhorov	154
PETROGRAPHY	
PETROCHEMISTRY OF PHYLLITES IN VARIOUS METAMORPHIC ZONES (NORTH BAIKAL UPLANDS), by V.Ya. Khil'tova, A.A. Savel'yev and I.K. Shuleshko	159
FUSED XENOLITHS AND FLUID MIGRATION THROUGH CRYSTALLINE ROCK, by G.N. Kovalev and Yu.P. Masurenkov	162
STRUCTURE AND ORIGIN OF "MINERALIZED BACTERIA", by N.S. Skripchenko and V.A. Lytkin	165
XENOLITHS OF DIAMOND-BEARING PYROPE SERPENTINITE FROM THE "AYKHAL" PIPE, YAKUTIA, by V.S. Sobolev, B.S. Nay, N.V. Sobolev, Yu.G. Lavrent'yev and L.N. Pospelova	168
EXPERIMENTAL STUDY OF THE SYSTEM $\text{CaO-SiO}_2\text{-CO}_2$ BETWEEN 800 - 1100° AND AT $\text{PCO}_2 = 50 - 500 \text{ kg/cm}^2$, by V.A. Zharikov and K.I. Shmulovich	170
TEMPERATURE FACIES OF METASOMATITES IN CARBONATITE INTRUSIONS IN EASTERN SIBERIA, by V.S. Samoylov and L.K. Pozharitskaya	173
LITHOLOGY	
THE REASONS FOR THE FLATTENED SHAPE OF CONCRETIONS, by P.V. Zaritskiy ...	177
A DESCRIPTION OF THE SANDY BEACH FACIES, by N.V. Logvinenko	180
COMPOSITION AND DISTRIBUTION OF CONCRETIONS IN THE MESOZOIC OF THE LOWER ALDAN DISTRICT, LENA BASIN, by G.P. Dubar'	183
GEOCHEMISTRY	
COEXISTENCE OF LIQUID PHASES AT HIGH TEMPERATURES: THE SYSTEM APATITE- NEPHELINE-VILLIAUMITE, by L.V. Delitevna and B.N. Melent'yev	185
VERTICAL ZONING IN CHEMICAL COMPOSITION OF GROUND WATER IN MASSIFS OF EASTERN MONGOLIA AND SOUTHEASTERN TRANSBAIKAL, by B.N. Marinov and N.A. Marinov	187
MIGRATION OF GOLD DURING METAMORPHISM OF SULFIDE-BEARING GRAPHITOID- KYANITE SCHIST OF THE KEYV SERIES, KOLA PENINSULA, by V.M. Chayka and G.Ye. Nezhdanova	190

(Contd)

Available From The American Geological Institute

DOKLADY AKADEMIY NAUK SSSR
Vol 188, No 1-6, Apr 1970

	Page
MAIN PATTERNS IN THE BEHAVIOR OF HEAVY RADIOISOTOPES IN ACTIVE VOLCANISM IN THE HAWAIIAN ISLANDS, by V.V. Cherdyntsev, V.M. Kuptsov and P.V. Zarkrzhetskaya	193
AGE OF THE OXYGEN ATMOSPHERE OF THE EARTH, by V.I. Vinogradov, I.B. Ivanov, M.A. Litsarev, N.N. Pertsev and L.L. Shanin	196
RELATION OF HELIUM TO PETROLEUM HYDROCARBONS, by V.F. Nikonov	199
ISOTOPIC COMPOSITION OF CARBON IN ANKERITE CARBONATITE AND THE SOURCE OF CARBONATITE MATERIAL PRESENT IN SEDIMENTARY ROCKS, by Yu.A. Bagdasarov, E.M. Galimov and V.S. Prokhorov	201
PALEONTOLOGY	
A DISCOVERY OF FOSSILS IN THE UPPER SUITE OF THE KRIVROY ROG SERIES IN THE PRECAMBRIAN OF THE UKRAINE, by A.G. Vologdin and A.I. Strygin	205
CAMBRIAN CYANOPHYCEANS FROM ULUG SHANGAN GORGE, TUVA, by A.G. Vologdin ..	208
HYDROGEOLOGY	
RELATIONSHIP BETWEEN SALINITY AND CHLORINITY IN THE BUSSE LAGOON, SAKHALIN, by L.A. Nepelna and A.V. Fursenko	213
OCEANOGRAPHY	
MESOPLANKTON BIOMASS IN DIFFERENT CLIMATIC ZONES IN THE OCEAN SURFACE LAYER, by V.G. Bogorov, K.K. Markov and I.A. Suyetova	215
NEW DATA ON THE SYSTEM OF WESTERN BOUNDARY CURRENTS IN THE TROPICAL ATLANTIC, by V.G. Kort, Yu.A. Ivanov, K.A. Chekotillo and V.G. Neyman	217
NEW DATA ON WATER CIRCULATION IN THE SOUTHEASTERN ATLANTIC, by K.V. Moroshkin, V.A. Bubnov and R.P. Bulatov	220
BIOLOGIC STRUCTURE OF THE OCEAN AND THE DISTRIBUTION, MIGRATION AND PRO- DUCTION PATTERNS OF NEKTON, by Yu.Yu. Marti	223

Available From The American Geological Institute

DOKLADY PHYSICAL CHEMISTRY

A translation of the Physical Chemistry Section of *Doklady Akademii Nauk SSSR*

Volume 189, Numbers 1-3

November, 1969

CONTENTS

Engl./Russ.

Change in Catalytic Activity of Zeolite as a Function of Valence of the Metal Ion Contained in It - Z. V. Gryaznova, M. M. Ermilova, G. V. Tsitsishvili, A. Yu. Krupennikova, and T. G. Andronikashvili	709	105
Method of Studying Kinetics of Substitution Reactions of Low-Molecular-Weight Radicals in Solid Polymers - O. A. Zaporozhskaya and V. S. Pudov	712	109
Acceleration of Sublimation of Platinum, Palladium, and a Platinum-Rhodium Alloy under Tensile Stress in Air - I. I. Novikov, E. I. Rytvin, and L. P. Ulybysheva	715	112
Interdependence of Acid-Base and Oxidation-Reduction Properties in a Series of Substituted Ferrocenes - A. A. Pendin, P. K. Leont'evskaya, T. I. L'vova, and B. P. Nikol'skii	717	115
Thermochemical Studies of the Adsorption of Water by Vermiculite - Yu. I. Tarasevich, A. O. Orazmuradov, V. E. Polyakov, and F. D. Ovcharenko	721	119
Conditions for Formation of Stable Emulsions in the Paraffin-Hydroxyquinoline System, near the Critical Mixing Regime - E. D. Shchukin, N. P. Fedoseeva, L. A. Kochanova, and P. A. Rebinder	724	123
Photoelectromotive Force and Electrical Conductivity of Complexes of Aromatic Hydrocarbons and Tetracyanquinone Dimethane - O. V. Kolninnov, V. M. Vozzhennikov, Z. V. Zvonkova, V. P. Glushkova, and É. E. Shapiro	728	353
Connection between Temperature of Polymorphic Transformation and Heat Resistance of Titanium Systems - T. T. Nartova	732	357
Stability Constants of Dipivalymethanates of Rare Earth Elements - A. S. Berlyand, L. I. Martynenko, N. P. Potapova, and V. I. Spitsyn	736	563
Influence of the Solubility Effect in the Carrier Gas on the Adsorption Capacity - E. V. Vagin	739	566
Mechanism of Self-Closing of Cracks in Polymers - Yu. M. Malinskii, V. V. Prokopenko, and V. A. Kargin	741	568
Investigation of the Block Nature of Copolymers by the Method of Anisotropic Light Scattering - E. P. Piskareva, E. G. Érenburg, and I. Ya. Poddubnyi	744	571
Effect of Hyperconjugation in Oxidation of Hydrocarbons with Conjugated Bonds - V. A. Poluéktov and N. V. Kulikova	746	573
Investigation of Polymerization Kinetics of Styrene by Surface-Energy Measurements - P. P. Pugachevich and A. G. Tokaev	750	577
Polymerization in an Emulsion in the Presence of Colloidal Surface-Active Initiators - A. I. Yurzhenko, V. A. Vil'shanskii, I. N. Kirichenko, and I. V. Smol'yaninov	752	580

The Russian press dates (podpisano k pechati) of the first and last issues covered in this issue of the translation were, respectively, 10/20/1969 and 11/14/1969. Publication of the material translated in this issue therefore is known to have occurred not prior to the earlier of these dates, but must be assumed to have taken place at intervals starting reasonably soon after this date and ending shortly after the later date.

Available From Consultants Bureau

SOVIET MATHEMATICS
DOKLADY AKADEMII NAUK SSSR

Tom 190 Nos. 1-6, 1970

Vol. 11, No. 1

January-February, 1970

TABLE OF CONTENTS

	Russian page nos.	Page
Arhangel'skiĭ, A. V. <i>A theorem on the representation of a homeomorphism modulo sets of first category</i>	(9-12)	1
Bulanov, A. P. <i>The best rational approximation of convex functions and functions of bounded variation</i>	(13-14)	5
Veĭc, B. E. <i>The existence of lacunary systems in Banach spaces</i>	(15-18)	8
Dinaburg, E. I. <i>The relation between topological entropy and metric entropy</i>	(19-22)	13
Kanovič, M. I. <i>On the complexity of enumeration and decision of predicates</i> ..	(23-26)	17
Kozlov, M. V. <i>On random subsets of vertices of an n-dimensional cube</i>	(27-30)	21
Kosickiĭ, M. E. <i>Nonlinear equations of Hammerstein type with a monotone operator</i>	(31-33)	25
Krasnosel'skiĭ, M. A.; Darinskiĭ, B. M.; Emelin, I. V.; Zabreĭko, P. P.; Lifšic, E. A. and Pokrovskiĭ, A. V. <i>Hysterant operator</i>	(34-37)	29
Mihaĭlov, V. P. <i>On stabilization of the solution of the Cauchy problem for the heat conduction equation</i>	(38-41)	34
Polovinkin, V. I. <i>Cubature formulas in $L_2^{(m)}(\Omega)$</i>	(42-44)	38
Skordev, D. <i>Some simple examples of universal functions</i>	(45-46)	41
Terehova, T. V. <i>Smoothness of a function of three variables of bounded variation</i>	(47-50)	44
Ušakov, V. I. <i>Classes of conjugate subgroups in topological groups</i>	(51-53)	48
Černeckiĭ, V. A. <i>On the conformal equivalence of Carleman's boundary value problem to Riemann's boundary value problem on an open contour</i>	(54-56)	51
Čerskiĭ, Ju. I. <i>A normally solvable equation of smooth transition</i>	(57-60)	55
Višik, M. I. and Grušin, V. V. <i>Elliptic boundary value problems degenerating on a submanifold of the boundary</i>	(255-258)	60
Gvazava, D. K. <i>On uniqueness of solution of the Tricomi problem for a class of nonlinear equations</i>	(259-262)	65
Geronimus, Ja. L. <i>The order of the degree of precision of Čebyšev's quadrature formula</i>	(263-265)	70
Zabreĭko, P. P.; Krasnosel'skiĭ, M. A. and Lifšic, E. A. <i>An elastic-plastic element oscillator</i>	(266-268)	73
Korneičuk, N. P. <i>Upper bounds of best approximations on classes of differentiable periodic functions in the C and L metrics</i>	(269-271)	77
Mihaĭlov, L. G. <i>On some two-dimensional integral equations with homogeneous kernels</i>	(272-275)	81
Ovčinnikov, I. S. <i>Some properties of plane and spatial mappings</i>	(276-279)	85
Ruhin, A. L. <i>Strongly symmetric families</i>	(280-282)	89
Saifutdinov, M. A. <i>On the existence of fundamental regions for a finitely</i>		(Contd.)

Available From The American Mathematical Society
Vol 11, No 1, Jan-Feb 1970

DOKLADY AKADEMII NAUK SSSR
Vol 190, No 1-6, 1970

	Russian page nos.	Page
generated Kleinian group	(283-284)	93
Tumašev, Ju. S. On application of the method of maximum likelihood to Gaussian random processes	(285-288)	95
Haikin, Ju. E. Boundedness of pseudodifferential operators in weight spaces	(289-292)	100
Čoban, M. M. Multivalued mappings and some associated problems	(293-296)	105
Avhadiev, F. G. On sufficient conditions for univalence of solutions of in- verse boundary value problems	(495-498)	109
Adjan, S. I. Infinite irreducible systems of group identities	(499-501)	113
Aleksandrov, A. D. Mappings of families of sets	(502-505)	116
Bibikov, Ju. N. On the stability of periodic motions in the transcendental case with two purely imaginary characteristic exponents	(506-509)	121
Brodskii, V. M. Triangular representation of nearly unitary operators and multiplicative decomposition of their characteristic functions	(510-513)	126
Vragov, V. N. On the smoothness of weak solutions of an elliptic equation degenerate on the boundary	(514-516)	131
Karacuba, A. A. On sums of characters with primes	(517-518)	135
Kogalovskii, S. R. Some reduction theorems for higher-order logic	(519-522)	138
Krasovskii, N. N. and Subbotin, A. I. On the structure of differential games ..	(523-526)	143
Marčuk, G. I. and Atanbaev, S. A. Some problems of "global" regularization (527-530)	(527-530)	148
Mihaïlov, L. G. On an integral equation of the theory of generalized analytic functions in the singular case	(531-534)	153
Muhamadiev, È. On the computation of the rotation of finite-dimensional vector fields (535-537)	(535-537)	158
Ter-Zaharjan, N. P. On some quantitative characteristics of algorithmic languages	(538-540)	161
Fišman, K. M. On the convergence of sequences of continuous linear mappings of analytic spaces	(541-544)	164
Antonevič, A. B. On the index of a pseudodifferential operator with a finite group of shifts	(751-752)	168
Brudnyi, Ju. A. Spaces definable by variation of local approximations	(753-755)	171
Veksler, A. I. On the partial orderability of rings and algebras	(756-759)	175
Zubov, V. I. On a problem of optimal stabilization	(760-762)	180
Kissin, È. V. Decomposition of a tensor product of irreducible, maximally de- generate representations of the group of nth order complex matrices with determinant 1	(763-766)	183
Kobelev, V. V. Proof of Fermat's last theorem for all prime exponents less than 5500	(767-768)	188
Litvinov, G. L. Group algebras of analytic functionals and their representations (769-771)	(769-771)	191
Ljubič, Ju. I. and Tkačenko, V. A. Quasi-analyticity criterion for abstract operators	(772-774)	195
Ljapunov, A. A. On covering of A-sets and multiple separability	(775-776)	199
Muhamadiev, È. Construction of a correct guiding function for a system of differential equations	(777-779)	202
Nikol'skii, N. K. Spectral synthesis for a shift operator and zeros in certain classes of analytic functions smooth up to the boundary	(780-783)	206
Ramazanov, M. D. Theorems on traces and extensions of functions from sur- faces	(784-787)	(210 Contd)

Available From The American Mathematical Society
Vol 11, No 1, Jan-Feb 1970

DOKLADY AKADEMIY NAUK SSSR
Vol 190, No 1-6, 1970

	Russian page nos.	Page
Semjanistyĭ, V. I. <i>Symmetric domains and Jordan algebras</i>	(788-791)	215
Fomenko, A. T. <i>Some cases when elements of homotopy groups of homogeneous spaces are realized by totally geodesic spheres</i>	(792-795)	219
Ščerbakov, B. A. <i>The method of limit transformations in the problem of existence of Poisson stable solutions of differential equations</i>	(796-799)	223
Žuk, V. V. <i>The degree of approximation of a continuous 2π-periodic function by the partial sums of its Fourier series</i>	(1015-1018)	227
Zolotarev, V. M. <i>Some new inequalities in probability connected with Lévy's metric</i>	(1019-1021)	231
Kasparov, G. G. <i>On the homotopy invariance of the rational Pontrjagin numbers</i>	(1022-1025)	235
Kondrat'ev, V. A. and Eidel'man, S. D. <i>Uniqueness of the solution of Cauchy's problem for linear evolutionary systems with variable coefficients</i>	(1026-1029)	239
Lemlein, V. G. <i>Quasi-symmetric conformally Euclidean spaces and a mathematical model of the space-time continuum in the large</i>	(1030-1033)	244
Freivald, R. V. <i>Coding of finite sets and a criterion of completeness up to coding in three-valued logic</i>	(1034-1037)	249
Šaginjan, A. A. <i>On limit sets of functions harmonic in the interior of a sphere</i>	(1038-1033)	254
Šatylo, E. I. <i>Groups of type CS</i>	(1040-1043)	256
Šepeljavyĭ, A. I. <i>On the qualitative investigation of global stability and of instability for a class of pulse-amplitude systems</i>	(1044-1047)	260
Arsen'ev, A. A. and Il'in, V. A. <i>A mean value formula for fundamental functions of the Beltrami operator and precise estimate of the sums of squares of fundamental functions</i>	(1263-1266)	264
Gel'fand, I. M. and Fuks, D. B. <i>On cohomologies of a Lie algebra of smooth vector fields</i>	(1267-1270)	268
Zaicev, D. I. and Kljackaja, L. M. <i>Nonabelian CL groups</i>	(1271-1273)	272
Korotkov, V. B. <i>Classification and characteristic properties of Carleman operators</i>	(1274-1277)	276
Krivošeev, B. V. and Savin, A. P. <i>On approximation of functions satisfying a Lipschitz condition by algebraic polynomials</i>	(1278-1281)	280
Kušner, G. F. <i>On a compactification of noncompact symmetric Riemannian spaces</i>	(1282-1285)	284
Lavrik, A. F. <i>On $L(1, \chi)$ with real Dirichlet character on sparse sets of values of the modulus of the character</i>	(1286-1288)	288
Petrov, N. N. <i>On the existence of a pursuit game value</i>	(1289-1291)	292
Table of contents for the next issue (Vol. 11, no. 2, March-April, 1970) Russian original		
Tom 191, nos. 1-4		294-a

CORRECTIONS

The authors have called attention to the following misprints:

A. I. Veksler, *Structural orderability of algebras and rings*, Vol. 6 (1965), no. 5, 1201-1204.

The title of this article should be, *Lattice orderability of algebras and rings*. The word translated as "structure" in this article should be "lattice", it occurs on

p. 1201, lines 4, 5, 22 and lines 1 and 3 of the footnotes,

p. 1202, line 7,

p. 1203, lines 18, 11 and 2 from the bottom of the page,

Available From The American Mathematical Society
Vol 11, No 1, Jan-Feb 1970

SOVIET ELECTROCHEMISTRY

A translation of *Élektrokhimiya*

Volume 5, Number 11

November, 1969

CONTENTS

	Engl./Russ.
Mechanism and Kinetics of the Electroreduction of Chromic Acid to CR(III) — D. N. Usachev	1201 1267
Kinetics of Electrode Reactions on the Bismuth Amalgam Electrode. IV. Electrochemical Behavior of Univalent Bismuth in Concentrated Perchloric Acid — V. V. Gorodetskii, V. V. Losev, and L. I. Fedortsov	1205 1271
Polarography of Arsenic. II. Verification of the Mechanism of the Reduction of Trivalent Arsenic — E. G. Vasil'eva, S. I. Zhdanov, and T. A. Kryukova	1211 1279
Polarography of Arsenic. III. Nature of the Maxima on the Polarograms of Acid Solutions of Trivalent Arsenic — E. G. Vasil'eva, S. I. Zhdanov, and T. A. Kryukova	1218 1287
Interaction of Oxygen and Hydrogen on Platinum. II. The Reaction Mechanism — V. A. Shepelin, Ts. I. Zalkind, and V. I. Veselovskii	1222 1291
BRIEF COMMUNICATIONS	
Optimization of the Geometry (Thickness) of Porous Liquid Electrodes — I. G. Gurevich and V. S. Bagotskii	1227 1297
Influence of Quaternary Salts of Quinoline and Quinaldine on Equilization during Nickel Plating — A. V. Pamfilov and O. M. Dolgaya	1230 1300
Investigations on Galvanic Analyzers for Oxygen — É. I. Konnik and I. L. Mordukhovich	1233 1303
Role of the Surface State of Combined Electrodes in the Electroreduction of Acetone — A. P. Tomilov, B. L. Klyuev, Yu. D. Smirnov, and E. L. Gal'perin	1236 1307
Electrochemical Properties of Cobalt Amalgams — V. K. Toibaev, S. A. Levitskaya, and A. I. Zebrev	1239 1309
Structure of Antimony Obtained by Electrodeposition from Aqueous Solutions — E. V. Kantsler, V. M. Rudoi, M. S. Khadyev, and A. I. Levin	1242 1312
Influence of the Composition of Glass on the Potential of a Glass-Sodium Electrode in Molten Salts — A. G. Morachevskii and I. Ya. Feenberg	1245 1316
Tracer Study of the Surface State of Platinum and Rhodium Electrodes in Sulfuric Acid at High Anodic Potentials — N. V. Pospelova, A. A. Rakov, and V. I. Veselovskii	1247 1318
Potentialities of the Coulometric Method in the Study of Amalgams — A. A. Lange and S. P. Bukhman	1250 1320
Mobilities and Electric Charges of Aluminate Ions in Solutions of Sodium and Potassium Aluminates — I. N. Maksimova and V. F. Yushkevich	1253 1323
Study of the Levelling Effect During Electropolishing of p-Germanium — O. E. Makarov and S. I. Krichmar	1256 1326
Some Principles of the Electrodeposition of Copper on Anodically Oxidized Aluminum — Ya. I. Aleksandrov	1259 1329
Investigation of the Electrochemical Behavior of Platinized Titanium Anodes (PTA) under Conditions of Evolution of Oxygen from Alkaline Carbonate Electrolytes — S. D. Khodkevich, I. E. Veselovskaya, L. M. Yakimenko, and A. A. Uzbekov	1262 1332 (Contd.)

Available from Consultants Bureau

Kinetics of Redox Reactions on Rutile Single Crystals — E. N. Paleolog and A. Z. Fedomova . . .	1266	1336
Adsorption of Aliphatic Compounds with Several Functional Groups on Lead — N. B. Grigor'ev and D. N. Machavariani	1270	1340
Graphical Analysis of Electrode Impedance when Faradaic and Charging Currents Pass Simultaneously through the Electrode — K. V. Rybalka	1272	1342
Rates of Displacement of Manganese, Copper, and Cobalt, Impurities by Sodium Amalgam from NaOH and NaCl Solutions — L. M. Yakimenko, E. K. Spasskaya, and V. I. Tkachenko	1275	1345
Impedance of a Hydrogen Electrode on Nickel in a Base at Pressures up to 100 atm — S. M. Salei and A. I. Krasil'shchikov	1279	1349
Investigations on the Equilibrium Potential of the System Oxygen-Hydrogen Peroxide — A. L. Rotinyan, A. I. Anurova, and N. B. Dobrozrakova	1282	1352
Influence of Composition of the Solvent on the Structural Changes of the Surface of a Metal during Anodic Dissolution. I. Anodic Dissolution of Nickel in Hydrochloric Acid — A. Sh. Valeev and R. F. Faizullina	1285	1355
Formation of Pore-Free Anodic Films on Aluminum in Aqueous Solutions. I. Effect of Anodization on Ionic Conductance Depending on the Field Strength — S. M. Ikonopisov and L. V. Andreeva	1288	1358
Electroreduction of Complexes of Univalent Copper with Thiourea — V. P. Portretnyi and G. A. Emel'yanenko	1292	1362
Statistical Description of the Microrelief of Electrolytic Deposits — V. N. Golubev and N. Ya. Kovarskii	1295	1365
Kinetics of Formation of a Cathodic Film during Electrodeposition of Chromium — N. A. Karnae, A. G. Mokhov, S. S. Savel'ev, and A. I. Levin	1299	1368
Behavior of a Tin Cathode in the Electrosynthesis of 3,4-bis-(p-Hydroxyphenyl)- hexanediol-3,4 — M. Ya. Fioshin, I. A. Avrutskaya, L. E. Gerasimova, and Nguyen Van Than	1302	1371
Operation of Hydrophobic Electrodes — A. B. Khanin and G. N. Trusov	1305	1375
Mechanism of the Anodic Dissolution of Copper in Sulfuric Acid. I. Concentration Changes in the Electrolyte in the Diffusion Layer and their Role in the Mechanism of the Process — A. Sh. Valeev, L. V. Khlopotina, and L. V. Chugunova	1307	1377
Chemisorption of Hydrogen and Oxygen on Platinum-Rhodium Alloys — K. A. Radyushkina, R. Kh. Burshtein, M. R. Tarasevich, V. V. Kuprina, and L. A. Cheriyaev	1309	1379
Study of the Reaction Path in the Anodic Dissolution of Passive Nickel by the Method of the Rotating Disc with Ring — A. I. Oshe, V. A. Lovachev, and B. N. Kabanov	1313	1383
Determination of the Slow Step of the Oxidation of Passive Nickel by Chronoamperometry — A. I. Oshe and V. A. Lovachev	1316	1386
LETTERS TO THE EDITOR		
Adsorption and Evolution of Hydrogen on Platinum Microcrystals Deposited on Pyrolytic Carbon — L. S. Kanevskii, V. Sh. Palanker, and V. S. Bagotskii	1319	1390

Available from Consultants Bureau

The Russian press date (podpisano k pechatl) of this issue was 10/20/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

SOVIET ELECTROCHEMISTRY

A translation of *Élektrokhimiya*

Volume 5, Number 12

December, 1969

CONTENTS

	Engl./Russ.
Simultaneous Electrochemical Reactions during Cathodic Deposition of a Tin-Zinc Alloy —É. D. Kochman and R. I. Kravtsova	1321 1395
Calculation of Dynamic Current-Potential Curves in Presence of Surface-Active Substances (Theory of the Adsorption-Desorption Hysteresis Loops) —M. Ya. Popereka	1324 1399
Theory of Adsorbed Compound Volt-Amperometry under a Continuously Altering Potential —B. N. Nesterov and N. V. Korovin	1330 1405
Transfer Entropy of Aqueous Sulfuric Acid Solutions—A. V. Pamfilov, A. I. Lopushanskaya, and Ya. Yu. Tevtul'	1336 1411
Oscillographic Polarography of Hydrogen Sulfide—A. G. Voloshin	1341 1416
Electric Double Layer on Platinum in Molten Salts—E. A. Ukshe, N. G. Bukun, and N. S. Tkacheva	1346 1421
Behavior of Ion Exchange Resin with Multicomponent Counterion Composition in a Composition in a Constant Electrical Field—G. N. Al'tshuler and V. V. Serebrennikov	1352 1427
Null Charge Potential of Metals in Mixtures of Dimethylformamide and Water —B. Yakushevskii, Z. Kozlovskii, and V. Granosik	1357 1433
BRIEF COMMUNICATIONS	
Investigation of the Palladium-Hydrogen Electrode by the NMR Method—A. N. Gil'manov, V. D. Lapshin, G. A. Gorbachuk, S. I. Berezina, and G. S. Vozdvizhenskii	1362 1438
Chemosorption and Oxidation of Hydrocarbons at a Platinum Electrode. VII. Electrooxidation of Ethylene at Different Partial Pressures—V. S. Tyurin, A. G. Pshenichnikov, and R. Kh. Burshtein	1365 1441
Chemosorption and Electrooxidation of Hydrocarbons on Platinum. VIII. Kinetics of the Chemosorption and Electrooxidation of Propane —A. G. Pshenichnikov, A. M. Bograchev, and R. Kh. Burshtein	1369 1445
Investigation of Cathodic Processes on Single-Crystalline Zinc Oxide in the Presence of Oxygen—D. M. Shub, V. P. Pakhomov, G. A. Ivanov, and V. I. Veselovskii	1373 1448
Investigation of Photoelectrochemical Processes on a ZnO Electrode. IV. Anodic Processes on Single-Crystalline and Polycrystalline Electrodes —V. P. Pakhomov, D. M. Shub, and V. I. Veselovskii	1377 1452
Electrical Conductivity of H ₂ SO ₄ Solutions in the Range from 0 to -50°C —Yu. I. Gerzhberg, B. S. Krumgal'z, V. M. Ryabikova, D. G. Traber, D. A. Kozlov, and A. I. Trepalin	1381 1457
Polarographic Behavior of Sodium Sulfides on a Mercury Electrode—G. K. Budnikov, V. F. Toropova, V. V. Kormachev, and V. A. Rusyaeva	1384 1459

(Contd)

Available From Consultants Bureau

	Engl./Russ.
Adsorption Behavior of Methanol on a Smooth Platinum Electrode in Alkaline Solution — Yu. M. Vol'fkovich, Yu. B. Vasil'ev, and V. S. Bagotskii	1387 1462
Influence of Alkaline Earth Cations on Overvoltage of Hydrogen on Liquid Gallium in Alkaline Solutions— I. A. Bagotskaya and E. N. Potapova	1390 1465
How Lattice Defects Affect the Adsorption and Electrochemical Properties of Platinum — I. I. Pyshnograeva, A. M. Skundin, Yu. B. Vasil'ev, and V. S. Bagotskii	1394 1469
Electrooxidation of Hydrazine on a Palladium Membrane. III. Effects of the Alkali Concentration and Temperature— N. V. Korovin and B. N. Yanchuk	1397 1472
Influence of Temperature on the Minimum-Capacitance Potentials of the Electric Double Layer at Certain Metals in Molten Lithium and Potassium Chlorides — R. A. Alekseeva and V. A. Kuznetsov	1400 1475
Use of Oscillographic Polarography for Investigations against an LiCl-KCl Background — I. I. Naryshkin, V. P. Yurinskii, and P. T. Stangrit	1401 1476
Electrical Conductivity of Melts in the LiNO ₃ -LiClO ₄ System— I. A. Brovkina, I. V. Kravov, and S. I. Selivanova	1404 1479
Cathodic Reduction of Aqua Complexes of Copper from Acid Solutions— S. I. Berezina, N. V. Gudin, and R. L. Akhmetova	1407 1481
Behavior of Methylene Blue on a Platinum Electrode. Communication II. — I. V. Shelepin, V. A. Barachevskii, and T. K. Zolomova	1410 1484
The Kinetics of the Electrodeposition of Antimony from Acidic Sulfate Electrolytes — A. D. Styrkas	1414 1488
The Zero-Charge Potential of an Air-Oxidized Cadmium Electrode— V. Ya. Bartenev, É. S. Sevast'yanov, and D. I. Leikis	1417 1491
Study of the Diffusion of Metals in Mercury by a Chronoamperometric Method — É. A. Zakharova, Z. G. Kilina, and G. A. Rakhmanina	1420 1494
Throwing Power of Electrolytes when the Polarization Curves have Falling Branches — N. P. Poddubnyi and L. I. Borodikhina	1424 1497
LETTERS TO THE EDITOR	
Behavior of Phosphorus in a Copper Deposit Obtained from Pyrophosphate Electrolytes and Its Influence on the Covering Properties and the Cathodic Process— G. N. Sorokin, Yu. G. Lavrent'ev and R. Yu. Bek	1426 1500
Preexponential Factor for the Hydrogen-Evolution Rate— V. M. Tsionskii	1427 1500
Electrolytic Separation of Hydrogen Isotopes in Alkaline Solution— V. M. Tsionskii and L. I. Krishtalik	1428 1501
Zero-Charge Potential for an Electrodeposited Cadmium Surface— V. Ya. Bartenev, É. S. Sevast'yanov, and D. I. Leikis	1429 1502
Acceleration of Electrochemical Processes on Platinum Irradiated in a Reactor — I. I. Pyshnograeva, Yu. B. Vasil'ev, I. E. Zimakov, V. S. Bagotskii, and V. I. Spitsyn	1430 1503
INDEX	
Author Index, Volume 5, Numbers 1-12, 1969	1433
Tables of Contents, Volume 5, Numbers 1-12, 1969	1439

The Russian press date (podpisano k pechatii) of this issue was 12/1/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

SOVIET PLANT PHYSIOLOGY

A translation of Fiziologiya Rastenii

(Russian Original Dated November-December, 1961)

Vol. 8, No. 6, pp. 523-624

May-June, 1962

CONTENTS

	PAGE	RUSS. PAGE
Sucrose Absorption by Plant Conducting Tissues, M. V. Turkina	523	649
Effect of Gibberellin on the Nitrogen Metabolism of Hemp (<i>Cannabis sativa</i> L.). F. V. Yanishevskii	529	658
Biosynthesis of Amino Acids from Pyruvic Acid and Ammonia in Rice and Sunflower. V. L. Kretovich and M. Kasperek	533	663
Changes in Adenosine Triphosphate Activity of Subcellular Units in Heat-Treated Plants, Yu. G. Molotkovskii	537	669
Effect of Various Forms of Nitrogen and Potassium Fertilizers on Belladonna Yield and Accumulation of Alkaloids, A. S. Alov	540	673
Effect of Dicarboxylic Acids on Pollen Germination and Growth of Pollen Tubes, U. A. Petrochenko	546	681
Excretion by Plant Roots During Brief Periods of Anaerobiosis, G. M. Grineva	549	686
Boron Requirement of Buckwheat During Its Development, A. P. Shustova	553	692
Effect of Fruits on Osmotic Pressure of Leaf Sap and Initiation of Flower Buds in Apple, L. Khvoika	558	698
Effect of Molybdenum on Changes in Plastid Pigments in the Leaves of Various Plants, E. I. Ratner, I. A. Burkin, and G. G. Tskhovrebashvili	564	707
Growth and Photosynthesis of Potato Plants in the Far North, E. K. Kardo-Sysoeva and E. G. Kopteva	570	715
Certain Peculiarities of Oxygen Absorption by Green Leaves in Light, N. P. Voskresenskaya and G. S. Grishina	579	726
Inhibition of Photosynthesis by Isonicotinic Acid Hydrazide, Hydroxylamine, and Chloramphenicol, N. N. Khurduk and L. A. Nezgovorova	585	734
Effect of Cosmic Flight Conditions on the Viability of <i>Chlorella</i> in a Spaceship (Sputnik), V. E. Semenenko and M. G. Vladimirova	592	743
BRIEF COMMUNICATIONS		
Respiration and Photosynthesis of Albino Sunflower Plants, I. I. Lyashchenko	598	750
Vernalization of Winter Plants During Variation of Light and Temperature Conditions, A. K. Fedorov	600	752
Chlorophyll Content as a Physiological Index of Heterosis in Corn, I. A. Shul'gin, F. M. Kuperman, V. A. Vysloukh, and I. P. Shcherbina	603	754
Author Index: Volume 8, 1961	607	
Tables of Contents: Volume 8, 1961	612	

Available From The American Institute of Biological Sciences
Vol 8, No 6, May-June 1962

FIZIKA TVERDOGO TELA EDITORIAL BOARD

A. I. Ansel'm
A. S. Borovik-Romanov
L. P. Gor'kov
O. V. Konstantinov
M. I. Kornfel'd
(Associate Editor)
L. I. Korovin
(Secretary)
M. I. Korsunskii
M. A. Krivoglas
G. V. Kurdyumov
I. M. Lifshitz
Ch. B. Lushchik
A. N. Orlov
A. F. Prikhot'ko
A. R. Regel'
S. M. Ryvkin
G. A. Smolenskii
V. M. Tuchkevich
B. K. Vainshtein
V. S. Vavilov
L. F. Vershchagin
S. N. Zhurkov
(Editor)
Institute of Physicotechnical Institute

V. P. Zhuzh

Soviet Physics SOLID STATE

A Translation of "Eizika Tverdogo Tela"

(Russian Original Vol. 11, No. 11, pp. 3061-3416, November, 1969)

Vol. 11, No. 11, pp. 2487-2780

May, 1970

CONTENTS

		PAGE	RUSS. PAGE
Nonlinear Interaction of Helicons in a Semiconductor in a Constant Electric Field. V. M. Yakovenko	(T)	2487	3061
Magnetic Susceptibility of a Metal in the Presence of Magnetic Impurities with Spin $S = 1/2$. A. Kh. Levin	(T)	2489	3064
Magnetic Properties of Powdered PbS after Pulverizing a Single Crystal. L. P. Strakhov	(E/T)	2492	3067
The Franz-Keldysh Effect in Cadmium Sulfide Using the Internal Photoeffect. V. A. Tyagai and V. N. Bondarenko	(E)	2496	3072
Equilibrium Dislocation Structures in a Nonuniformly Doped Semiconductor. P. V. Pavlov and V. I. Pashkov	(T)	2501	3078
X-Ray Observation of Deformation Fields Around Edge Dislocations in Germanium Crystals. L. N. Danil'chuk	(E)	2506	3085
Magnetic Spectra in Ferromagnets. P. M. Rybak	(T)	2511	3092
Reactive Coagulation of Oxide Particles in a Metallic Matrix. A. V. Serebryakov	(T)	2517	3100
Some Problems in the Dynamics of Bounded Crystal Lattices for Given Initial Conditions. A. S. Dolgov	(T)	2520	3104
Thermal Conductivity in Metals having Equal Numbers of Electrons and Holes. R. N. Gurzhi and V. M. Kontorovich	(T)	2524	3109
Current Carriers in Ferromagnetic Semiconductors in the Case of Strong Interaction. M. A. Krivoglas and A. A. Trushchenko	(T)	2531	3119
Energy Spectrum of Cathode Sputtering Products during Bombardment of a Metal by Heavy Ions. V. I. Veksler	(T/E)	2540	3132
The Structure of Bismuth-Antimony Double Layer Crystals. V. M. Kosevich, L. S. Palatnik, S. N. Grigorov, and Yu. V. Zolotnitskii	(E)	2547	3141
B-Center Radiation Formation Mechanism in Silver-Doped Alkali Halide Crystals. S. M. Muradov, M. Kh. Muradova, and M. A. Élango	(E)	2553	3149
Calculation of the X-Ray Interference Coefficient for Absorption in Crystals Containing Point Defects. V. I. Iveronova, A. A. Katsnel'son, and V. I. Kisin	(T)	2557	3154
Instability in Semiconductors with Nonlinear Volt-Ampere Characteristics. A. F. Volkov and A. Ya. Shul'man	(T)	2563	3161 (Contd)

Available From The American Institute of Physics
Vol 11, No 11, May 1970

FIZIKA TVERDOGO TELA
Vol 11, No 11, 1969

			RUSS. PAGE PAGE
Method of Making Allowance for the Differences in the Effective and Average Fields of a Light Wave in Determining the Spectroscopic Characteristics of Molecules in Isotropic Crystals. <u>I. I. Shaganov, V. S. Libov, and N. G. Bakhshiev</u>	(T)	2569	3169
Influence of Dispersion on Positron Annihilation in Metal Oxides. <u>G. M. Bartenev, A. Z. Varisov, V. I. Gol'danskii, B. M. Levin, A. D. Mokrushin, and A. D. Tsyganov</u>	(E/T)	2575	3177
High-Frequency Electrical Conductivity of a Thin Metallic Plate in Strong Magnetic Fields. <u>M. Ya. Azbel' and S. Ya. Rakhmanov</u>	(T)	2580	3183
Absence of Coulomb Pairing in Semiconductors with a Vanishing Forbidden Band. <u>B. L. Gel'mont</u>	(T)	2589	3195
Oxidation Kinetics of Tungsten. <u>V. N. Ageev and N. I. Ionov</u>	(E)	2593	3200
Choice of an Optimal Quasiharmonic Model of an Organic Crystal. <u>A. I. Kitaigorodskii and B. D. Koreshkov</u>	(T)	2596	3203
The Lorenz Number and Other Transport Coefficients in Degenerate PbTe, PbSe, and PbS Samples. <u>V. I. Tamarchenko, Yu. I. Ravich, L. Ya. Morgovskii, and I. N. Dubrovskaya</u>	(T/E)	2599	3206
Thermal Conductivity, Thermal EMF, and Electrical Conductivity of Pure and Doped Rutile (TiO ₂) Single Crystals. <u>V. N. Bogomolov, I. A. Smirnov, and E. V. Shadrichev</u>	(E)	2606	3214
Scattering of Low-Energy Electrons by a Three-Dimensional Kronig-Penney Potential. <u>K. S. Pogorel'skii, V. F. Dvoryankin, and A. Yu. Mityagin</u>	(T)	2614	3225
Light Absorption in a Thin Film in the Presence of a Quantum Size Effect. <u>V. G. Kogan and V. Z. Kresin</u>	(T)	2618	3230
The Plastic Strain of Polycrystalline Aluminum under the Influence of Ultrasonic Pulses. <u>I. A. Gindin, I. M. Neklyudov, G. N. Malik, and O. I. Bolchok</u>	(E)	2623	3236
Quantum Theory of Oscillations in a Ferroelectric Ferromagnet. <u>V. G. Bar'yakhtar and I. E. Chupis</u>	(T)	2628	3242
Dislocation Climb Near a Pore. <u>B. Ya. Lyubov and L. P. Semenov</u>	(T)	2632	3248
Theory of Dislocation Mobility in the Low-Velocity Range. <u>V. V. Rybin and A. N. Orlov</u>	(T)	2635	3251
Absorption and Luminescence Bands in Bose-Einstein Condensation of Excitons which Interact with Phonons. <u>A. V. Lelyakov and S. A. Moskalenko</u>	(T)	2642	3260
Effect of Plastic Deformation on the Angular Distribution of Photons during Positron Annihilation in a Molybdenum Crystal. <u>I. Ya. Dekhtyar, V. S. Mikhalekov, and S. G. Sakharova</u>	(E)	2647	3266
Decay of Excitons into F and H Centers in KBr Crystals. <u>E. S. Tisler and Ch. B. Lushchik</u>	(E)	2650	3270
Effect of Doping on the Solubility and Behavior of Copper in Gallium Arsenide. <u>M. G. Mil'vidskii, V. B. Osvenskii, and T. G. Yugova</u> ...	(E)	2654	3276
Paramagnetic Properties of Iron-Doped Indium Antimonide. <u>G. V. Il'menkov, D. N. Nasledov, Yu. S. Smetannikova, and V. R. Felitsiant</u>	(E)	2659	3282
Determination of the Parameters of the Conduction Band of GaSb from Thermomagnetic Effects. <u>R. V. Parfen'ev, A. V. Matveenko, V. S. Vekshina, I. G. Lang, and S. T. Pavlov</u>	(E/T)	2663	3287
Acoustical Faraday and Birefringence Effects in Y ₃ Fe ₅ O ₁₂ under the Conditions of a Uniform Internal Magnetic Field. <u>A. V. Pavlenko, Yu. M. Yakovlev, and V. V. Lemanov</u>	(E/T)	2673	3300 (Contd)

Available From The American Institute of Physics
Vol 11, No 11, May 1970

	RUSS. PAGE	PAGE
A Change in the Absorption Coefficient of Pure GaAs under Strong Photoexcitation. <u>V. S. Bagaev and L. I. Paduchikh.</u>	(E)	2676 3304
Parametric Amplification of Acoustic Waves in Piezosemiconductors. <u>V. M. Levin and L. A. Chernozatonskii</u>	(T)	2679 3308
Heat Conductivity of Stoichiometric and Heavily-Doped Bismuth Telluride Crystals. <u>I. A. Smirnov, E. V. Shadrachev, and V. A. Kutasov</u>	(T/E)	2681 3311
 BRIEF COMMUNICATIONS		
Effect of Plastic Deformation on the Angular Distribution of Photons during Positron Annihilation in Single Crystals of Ge and Si. <u>I. Ya. Dekhtyar, V. S. Mikhalekov, and S. G. Sakharova.</u>	(E)	2690 3322
Study of the Nb-Zr-H System by the Spin-Echo Method. <u>E. F. Khodosov and I. I. Khodos.</u>	(E)	2693 3325
Crystal Lattice Distortion during the Weak Ferromagnetic Transformation in the System $Mn_2Ge_3Sb_{1-y}$. <u>A. A. Galkin, É. A. Zavatskii, and E. M. Morozov</u>	(E/T)	2696 3328
Investigation of the Vibrational Spectrum of Cuprous Oxide Crystals in the Long-Wave Region. <u>A. I. Stekhanov and Yu. F. Markov</u>	(E)	2698 3330
Pulsed Quantum Yield in the X-Ray Photoelectric Effect in Dielectrics. <u>V. N. Shchemelev and E. P. Savinov</u>	(T)	2700 3333
Thermoelectric Effects in Anisotropic Titanium Foils. <u>L. A. Kalinets, I. G. Mel'nik, and A. E. Bryukhanov</u>	(E)	2702 3335
Mössbauer-Effect Study of Aging Phenomena in Copper Ferrite. <u>V. F. Belov, T. A. Khimich, E. V. Korneev, V. V. Korevushkin, and L. M. Letyuk.</u>	(E)	2705 3338
Raman Light-Scattering Cross Section of Several Typical Crystals. <u>V. S. Gorelik and M. M. Sushchinskii.</u>	(E)	2707 3340
Cyclotron Resonance in a Modulating Alternating Magnetic Field. <u>F. T. Vasko and I. M. Dykman</u>	(T)	2710 3343
Change of the Resistance of SbSI under the Action of Acoustic Waves. <u>V. F. Kunigelis, É. P. Garshka, and B. P. Ketis</u>	(E)	2712 3344
Relation between the Conductivity and Absorption Spectrum of Impurity-Type Alkali Halide Crystals and the Method of Hole Coloring. <u>Ya. N. Pershits and M. G. Pinsk</u>	(E)	2714 3347
Zeeman Effect on Lines of Cubic Gd^{3+} Centers in SrF_2 and BaF_2 Crystals. <u>B. N. Kazakov, A. M. Leushin, and A. L. Stolov.</u>	(E/T)	2717 3349
Modulation of Electromagnetic Waves by Oscillations of the Magnetic Moment. <u>R. P. Yankelevich.</u>	(E/T)	2719 3352
Fine Structure of Fluorine K Absorption Spectra in Alkali Halide Crystals. <u>A. S. Vinogradov, T. M. Zimkina, and Yu. F. Mal'tsev.</u>	(E)	2721 3354
Green Electroluminescence in Gallium Phosphide. <u>A. M. Zykov and B. E. Samorukov</u>	(E)	2724 3357
Oscillation Resonances during Two-Photon Ionization. <u>V. A. Kovarskii and E. V. Vitlu</u>	(T)	2726 3359
Dielectric Properties of $PbW_{0.5}Cd_{0.5}O_3$. <u>E. C. Fesenko, A. Ya. Dantsiger, A. N. Klevtsov, and T. V. Rogach</u>	(E/T)	2729 3362
Recording of Inhomogeneous Macroelastic Strain Fields by Borrmann X-Ray Patterns. <u>V. I. Iveronova, A. A. Katsnel'son, V. I. Kisin.</u>	(E)	2731 3364
Shift in the Compensation Temperature Induced by Substitution of Europium Ions for Samarium Ions in Samarium Orthoferrite. <u>K. P. Belov, A. M. Kadomtseva, T. M. Ledneva, T. L. Ovchinnikova, and V. A. Timofeeva.</u>	(E)	2734 3367

(Contd)

		RUSS. PAGE PAGE
Excitation of Electron-Hole Pairs in Germanium by Slow Electrons. I. A. Abroyan and L. A. Tsekhnovicher	(E)	2736 3368
Effect of Boundary Conditions on Charge Generation in the System Semiconductor-Dielectric. Yu. V. Fedorovich and L. K. Dumish, ...	(T)	2738 3370
Relation between the Inhomogeneity of the Resistivity Distribution and the Density of Dislocations in Silicon. V. F. Afanas'ev and N. P. Afanas'eva	(E)	2741 3373
Frequency Dependence of the Cyclotron-Resonance Linewidth. E. M. Gershenzon, Yu. A. Gurvich, S. L. Orlova, and N. G. Ptitsina ..	(E)	2743 3374
Channeling of Light Ions in Germanium. I. A. Abroyan, V. A. Koryukin, M. N. Ushakov, and L. A. Tsekhnovicher	(E)	2745 3376
Low-Frequency Conductivity of Phthalocyanine Films with Unipolar Injection. A. N. Blagodarov, É. L. Lutsenko, and L. D. Rozenshtein ..	(E)	2747 3379
Interaction of Light with Magnetoacoustic Waves in a Ferrodielectric. A. S. Bakai and R. P. Yankelevich.	(T)	2749 3381
First-Order Negative Photodielectric Effect in Phthalocyanine in the Ferroelectric State. E. A. Chistyakov, Yu. A. Vidadi, and L. D. Rozenshtein.	(E)	2751 3383
Dipolon Concentration in Alkali Halide Crystals. G. A. Rozman.	(T)	2753 3385
Annealing of Defects in Electrolytically Colored KBr Crystals. C. A. Andreev, G. B. Semushkin, and A. N. Tsikin.	(E)	2755 3387
Electrical Properties of the Single-Crystal Highest Silicide of Manganese. E. N. Nikitin, V. I. Tarasov, A. A. Andreev, and L. N. Shumilova	(E)	2757 3389
Electrical Conductivity of the Antiferromagnetic Semiconductor MnTe below its Néel Temperature. A. I. Zvyagin, L. V. Povstanyan, and R. M. Aref'eva.	(E)	2759 3392
Acceleration of the Processes for Establishing Polarization in SbSI Single Crystals under the Action of Light. V. V. Ivanov, A. A. Bogomolov, and V. M. Rudyak	(E)	2761 3394
Thermodynamics of a Heisenberg Antiferromagnet. É. M. Pikalev and M. A. Savchenko.	(T)	2763 3396
Effective Tensor of Generalized Conductivity and the Tensor of Hall Conductivity in Polycrystalline Aggregates. V. A. Kudinov	(T)	2765 3399
Anomalous Amplitude Dependence of the Elastic-Modulus Defect in Alkali Halide Crystals. Ya. M. Soifer and Yu. G. Sorokin	(E)	2767 3401
Capture of Hot Holes in KCl:Tl. E. D. Aluker, O. E. Aksenov, and N. L. Romanenko	(E)	2769 3403
Characteristics of the Photomagnetic Effect in n-Type InSb at 77°K. Yu. A. Bykovskii, V. F. Elesin, E. A. Protasov, and M. Yu. Lazarev ..	(E)	2771 3404
Structural Features of Wedge-Shaped Deposited Layers of Germanium. A. I. Shaldervan and N. G. Nakhodkin.	(E)	2773 3407
Photoelectric Emission of Some Polymers. F. I. Vilesov, A. A. Zagrubskii, and D. A. Sukhov	(E)	2775 3409
Theory of an Antiferromagnet in a Strong Magnetic Field of Arbitrary Direction. G. K. Chepurnykh	(T)	2777 3411

Available From The American Institute of Physics
Vol 11, No 11, May 1970

1. Principles of long-range planning of production and growth of reserves of oil and gas.
B. A. Tkhostov et al. p. 417
2. Nizhne-Vartov dome - a large zone of oil-gas accumulation.
F. G. Gurari and S. I. Bliznichenko p. 422
3. Comparative estimate of the oil-gas prospects of the Siberian platform adjacent to the Yenisei River.
T. K. Bazhenova et al. p. 429
4. New data on the geology and oil-gas of the Vilyuy synclize.
G. D. Babayan p. 435
5. Results of deep drilling in the region of the Zhigalovo swell.
A. S. Antsiferov p. 441
6. Some geologic results of interpretation of gravity data for the southwest part of the Vilyuy depression.
O. K. Litvinenko and V. R. Melikhov p. 445
7. Ust'-Valyk field and method of its commercial exploration.
A. S. Polushkin and V. P. Sanin p. 451
8. Tectonics of the Markovo oil region.
E. A. Ivanov and V. I. Karaseva p. 454
9. Time of formation of local structures and oil fields of the Yelabugo-Bondyuga.
R. A. Bareyev and L. D. Fayzullin p. 458
10. Oil-gas productivity of the Devonian sediments of the central areas of the Russian platform.
N. S. Il'ina and D. L. Frukht p. 463
11. Oil prospects of the Ufa region of Bashkiria.
A. K. Dragunskiy and U. G. Ishayev p. 468
12. Determination of faults and their age on a basis of seismic surveying.
R. L. Andreyeva p. 475

- * - * - * -

Available From Petroleum Geology

CONTENTS

V. N. Zhukinskiy: The Institute of Hydrobiology of the Academy of Sciences of the Ukrainian SSR [A Historical Sketch and Contemporary Activity]	1
A. D. Sheherbakov: Quantity and Biomass of Protozoa in the Plankton of a Eutrophic Lake	9
V. I. Vladimirov: Effect of Polymicrofertilizers (PMU-7) on the Development and Survival of Fish in the Early Stages of Life	15
L. N. Voloshko: Phytoplankton of the Lower Volga and of Several Principal Arms of the Delta	23
K. F. Akhundov, T. V. Grekalova, N. I. Karayeva and S. M. Tenengol'ts: Sanitary Biological Conditions, Processes of Self-Purification and Content of Trace Elements in the Waters of the Rivers of the Sheki-Zakataly Zone of Azerbaydzhan	29
G. A. Lukina and V. E. Sinel'nikov: Effect of Photosynthetic Activity of Algae on Inhibitors of Free-Radical Reactions	33

Brief Communications

B. A. Vaynshteyn: Evaluation of the Number and the Distribution of Fresh-Water Invertebrates in a Water Reservoir	38
L. M. Ivanova: Relation Between Size and Weight Characteristics in Caspian Molluscs of Mediterranean Origin	39
V. I. Romanenko: Production of Bacteria and Phytoplankton in Fresh-Water Reservoirs	43
V. N. Ivanov: Uptake of Mn^{54} , Co^{60} , and W^{185} by the Roe of the Black Sea Turbot	45
N. G. Ozeretskoykaya: Accumulation of Radiophosphorus by Algae Under Experimental Conditions	46
I. D. Bliznyuk: Duration of Life and Activity of Free-Swimming Cercariae <i>Opisthorchis felinus</i> Riv.	50

Methods

A. A. Stroganov and A. V. Kovalev: Evaluation of Accuracy of Quantitative Sampling of Zooplankton	53
L. I. Lebedeva and Ye. I. Kozlova: Size-Weight Characterization of Live and Formalin-Fixed Fresh-Water Cladocera	59
A. K. Vinogradov: Concerning a Method of Visual Observation in the Hyponeuston Layer	65
A. V. Neyfert: A Refrigeration Unit for Aquariums With Running Water	68

Criticism and Bibliography

J. Smith: "Torrey Canyon" Pollution and Marine Life A report by the Plymouth laboratory of the United Kingdom	72
V. S. Prosyaniy, A. G. Solovey and G. I. Shpet: Ribnitsvo (Fish Culture)	74
I. I. Dedyu: Amphipods and Mysids in River Basins of the Dniester and Prut	76

Anniversaries and Dates

D. A. Radzimovskiy: Dmitriy Onisiforovich Svirengo (1888-1944)	79
--	----

News

S. P. Drambyants: The Zernov Lectures	82
Available from The American Fisheries Society	

Table of Contents

Page

No. 1

B. D. Petrov. V. I. Lenin and the Protection of the People's Health. . . .	3
Ya. G. Dvoskin, N. A. Rakhmanina, F. V. Dem'yanko, T. A. Menshikova, L. F. Erofeeva, and A. V. Lashkina. Hygienic Assessment of "Pavinol"	8
N. G. Belyaeva. Hygienic Standards for Mesidine as an Industrial Pollutant in Water Bodies	13
E. V. Podobina and V. P. Solov'eva. Physiological and Hygienic Features of the Work of Subway Motormen	20
S. I. Gorshkov. Perception of Low Ultrasonic Frequencies	26
I. L. Kulinskaya. Certain Changes of Acetylcholine Metabolism in Acute and Chronic Poisoning with Carbon Disulfide	32
K. I. Luchina. Hygienic Requirements for the Grounds of Children's Institutions	38
N. N. Khvostov and M. S. Kostyakov. Hygienic Significance of Radioactive Contamination of Working Surfaces	43
I. K. Dibobes, S. Ya. Zaidman, L. I. Panteleev, and A. M. Skryabin. Behavior of Atmospheric Sr^{90} in a Food Chain	48

METHODS OF INVESTIGATION

G. N. Krasovskii, A. A. Korolev, N. G. Belyaeva, S. P. Varshavskaya, K. V. Kutakov, R. T. Malikova, and M. B. Trakhtman. Comparative Sensitivity of Man and Laboratory Animals to a Chemical (Acetophos) under Experimental Conditions	54
N. A. Krylova. Photocolorimetric and Spectrophotometric Determina- tions of Zineb in Air	59

(Contd)

Available from CFSTI TT 69-55003/1

GIGIYENA I SANITARIYA
Vol 34, No 1-3, 1969

M.D.Babina and Z.A.Volkova. Investigation of the Products of the Thermal Degradation of a Polyamide Resin	62
G.P.Kalina. Comparison of Methods for Estimation of Enterococci in Water	65
L.I.Loabin and M.S.Marova. The Use of Antibiotics in Virological Investigations of Milk and Dairy Products	68
O.I.Yurasova. Determination of Co ⁶⁰ in Water, Biological Materials, and Soil	71

SOCIAL HYGIENE, HISTORY OF HYGIENE, AND
PUBLIC HEALTH ADMINISTRATION

E.Ya.Belitskaya. Modern Demographic Processes and the Convergence "Theory"	74
Z.Z.Shnitnikova. Favorable Changes in Mortality during the Modern Period (Based on Data for Leningrad)	79
A.D.Safonova. A Brief Review of the Development of Sanitary-Epidemiological Services in the Tatar ASSR	84

REVIEWS

Ya.M.Grushko. Treatment of the Problems of General and Environmental Hygiene by the East German Public Health Journal in 1966-1967	87
--	----

ABROAD

T.Popov and R.Angelieva. Mechanism of Effect of Boron on Warm-Blooded Animals (Uptake, Distribution and Elimination).	93
Sp.Novakova. Hygienic Standards for Combined Presence of Arsenic and Lead in Water	96

DISCUSSIONS AND READERS' COMMENTS

V.V.Kaminskii and V.E.Sycheva. Concerning the Meaning of the Term "Health State of Children and Adolescents"	102
I.M.Geller and E.A.Sementsova. Hygienic Characteristics of Microclimate in Experimental Classrooms in Relation to their Exposure and Ventilation	103

(Contd)

Available from CFSTI TT 69-55003/1

GIGIYENA I SANITARIYA

Vol 34, No 1-3, 1969

N. A. Romanenko and V. A. Gorbov. Sanitary Evaluation of Subsurface Filtration Devices	108
E. Turovskii. Concerning B. Litvinov's Letter	110

FIELD REPORTS

E. V. Bobin. Reduction of Noise Generated by Trains and by Rheostat Testing of Diesel Locomotives	113
S. I. Dobrinskii. Hygienic Assessment of the Efficiency of Neutralization of Spent Pickling Solutions with Ferrochrome Slag ..	117
V. I. Shulyarenko and V. N. Ponomarenko. Investigation of an Outbreak of Water-Borne Typhoid Fever Using Fluorescein	119
A. P. Litvinov and V. G. Peskov. Cases of Botulism Caused by Home-Preserved Mushrooms	121
M. N. Korshun. More Precise Formulation of Certain Hygienic Requirements for Work with Mercury in Schools	123

COMMUNICATIONS IN BRIEF

B. G. Afanas'ev. Changes in Blood Electrolytes on Prolonged Exposure to Low Concentrations of Carbon Dioxide	127
A. G. Pozdnyakova. Maximum Permissible Concentration of Isopropyloctadecylamine in Water	129
Z. M. Evenshtein. Bactericidal Effect of Extremely Pure Aluminum and Certain Aluminum Alloys	132
V. A. Tsendrovskaya, V. V. Stankevich, and K. I. Stankevich. Measurements of Electrostatic Charges on Plastic Building Materials	135
A. M. Mikulinskii and V. F. Kuzina. Hygienic Study of Working Conditions Involved in the Operation of Electric Grinders, and Methods of Improvement	138
A. M. Khakimova, N. P. Zelenkova, and E. I. Panchenko. Thyroid Changes in Rats Caused by an Increase of Manganese in their Food	141
I. A. Oparin and N. V. Oparina. On the Relationship between the Content of Hematopoietic Trace Elements in Natural Foods and the Frequency of Anemia	143
L. A. Leonova and E. E. Sarkisyan. Certain Hygienic Aspects of Technical Schools	146

(Contd)

Available from CFSTI TT 69-55003/1

GIGIYENA I SANITARIYA
Vol 34, No 1-3, 1969
 METHODS OF INVESTIGATION

L.G. Aleksandrova and M.A. Klisenko. Spectrophotometric Determination of Carbine, IPC and Prevenol in Blood	211
L.E. Korsh and N.G. Kichenko. Isolation of Enterococci from Water .	214
E.M. Panov, S.I. Vasilov, and B.N. Manuchar'yan. Nomogram for Calculation of 3,4-Benzpyrene in Biological Sources	218
M.V. Kozlova and V.V. Lisunova. Determination of Cesium-137 In Environmental Sources	219

SOCIAL HYGIENE, HISTORY OF HYGIENE,
AND PUBLIC HEALTH ADMINISTRATION

N.V. Dogle and Yu. G. Shirokov. Changes in the Health of the Population of the Naro-Fominsk District of the Moscow Region, 1922- 1966.	224
V.A. Bazanov. Struggle for Sanitation in Petrograd in 1918 and Establishment of the First Soviet Public Health Authorities	229

REVIEWS

N.N. Pushkina. Modern Methods for Assessment of Renal Function in Toxicological Experiments	237
---	-----

ABROAD

J. Indulski. Effect of Social Factors on Sickness Absenteeism	243
G.I. Zuev. Medical Inspection of Labor in Certain Western Countries ..	248

DISCUSSIONS AND READERS' COMMENTS

N.M. Vasilenko and V.A. Volodchenko. On Methods for the Establishment of Hygienic Standards for Toxic Dusts	252
V.V. Chugunov. Possibilities of Determining the Beta-Activity of Preparations Using Cylindrical Counters for Monitoring in Radiation Hygiene	256
	(Contd)

Available from CFSTI TT 69-55003/1

GIGIYENA I SANITARIYA
Vol 34, No 1-3, 1969

FIELD REPORTS

A. G. Maevskii and G. B. Ivkov. Prevention of Poisoning with Agricultural Chemicals in the Ternopol Region	260
A. I. Makarkin. Certain Shortcomings in the Design of Public Catering Enterprises and Food Stores	263
I. M. Terent'ev. Basic Sanitation for Personnel in the Food Industry, Catering Enterprises and Retail Food Trade [In Volgograd]	264
T. P. Fedorova. Role of Health Education in the Training of Volunteers for the Protection of Children's Health in a Rural Medical District	267
L. A. Tarasov, N. A. Troyanova, A. V. Sazonova, and K. A. Pyatovskaya. Certain Aspects of the Protection of Schoolchildren's Health in the Far North	268
B. N. Il'in. Concerning the Role of a Biological Filter with Settling Tanks in the Retention of Radioactive Isotopes from Effluents	273

COMMUNICATIONS IN BRIEF

L. M. Shabad and G. A. Smirnov. 3,4-Benzpyrene in Soot and Exhaust Gases from Gas-Turbine and Piston Aircraft Engines ...	278
K. A. Rapoport and L. A. Milovanova. Chemical Stability of a New PVC Fiber	280
L. N. Pylev. Pulmonary Morphological Changes in Rats Treated with Channel Black with Adsorbed 3,4-Benzpyrene	283
G. N. Repin. Effect of Industrial Microclimate on Blood Pressure of Workers in Different Occupational Groups	288
S. A. Stepanov. Effect of Unsterilized and Sterilized Grain Dust on the Lungs	291
M. I. Gzhegotskii and B. M. Shtabskii. Effect of Dicotex on the Progeny of Albino Rats	295
G. A. Belonozhko and Yu. A. Kuchak. Electrocortical Reactions of Rats to Sevin	298
M. N. Markova, M. Ya. Brents, S. G. Aptekar', T. N. Zitler, N. A. Nazarova, and G. Beloshapko. Hygienic Assessment of Thermally Processed Sunflower Oil	301

(Contd)

Available from CFSTI TT 69-55003/1

GIGIYENA I SANITARIYA
Vol 34, No 1-3, 1969

Ch. A. Garbalyauskas and V. P. Mutulyavichyus. Simultaneous Recording of Diurnal Fluctuations in Atmospheric Dust Content and Radioactivity	304
---	-----

CONGRESSES · MEETINGS · CONFERENCES ·
SCIENTIFIC SOCIETIES

A. A. Sychev, O. N. Savel'ev, and V. N. Sergeta. Conference on the Protection of Children's and Adolescents' Health in Kharkov	307
K. A. Kamenkov. Activities of the Section for Social Hygiene and Public Health Administration at the Leningrad Branch of the All-Russian Scientific Society of Hygienists and Sanitary Physicians in 1967	309

BOOK REVIEWS

I. L. Korotko. Methods of Hygienic Investigation, by A. A. Minkh . . .	311
E. M. Belostotskaya. Effect of Physical Stress on Schoolchildren, Based on Self-Regulation, by P. I. Gumener, E. K. Glushkova, and R. G. Sapozhnikova	313
Bodyako, Kokina, Kryukova, Romysh, Rusyaev. Review of the Journal "Hygiene and Sanitation" in 1967	314
CURRENT EVENTS AND INFORMATION	318

No. 3

V. A. Pul'kis and S. A. Pul'kis. Topical Hygienic Problems of City Planning in Siberia	323
T. M. Markosyan. Comparative Toxicities of Mono- and Dimethyl- Aniline in a Long-Term Experiment	328
K. K. Vrochinskii and A. T. Agalakova. Hygienic Assessment of DDT in Midge Control	333
V. V. Popov, A. A. Svishchev, A. M. Pantyukhov, V. I. Pakizh, P. V. Zhuravel', and Yu. P. Teplov. Hygienic Problems in Pavlodar Region in Connection with Regulation of the Irtysh River (Contd)	337

Available from CFSTI TT 69-55003/1

GIGIYENA I SANITARIYA
Vol 34, No 1-3, 1969

A. I. Kikolov. Nervous Fatigue in Persons Working under Intense Mental and Emotional Strain	342
A. P. Volkova, V. M. Tsetlin, E. B. Zhuk, and E. P. Izotova. Toxicity of Kerosene Used as Solvent in Aerosol Containers, ...	348
B. A. Katsnel'son and L. G. Babushkina. Sex Differences in Susceptibility to Silicosis	353
A. S. Polyachek. Investigation of Certain Physiological Reactions in Adolescents Employed as Boners	357
A. N. Marei, B. K. Borisov, and R. M. Barkhudarov. Sr^{90} in the Bone Tissue of the Population of the USSR (1957-1967)	362

METHODS OF INVESTIGATION

S. K. Nenasheva. Spectrophotometric Determination of Dibutyl Maleate, 2-Ethylhexyl Acrylate and Vinyl Acetate in Air ...	372
A. E. Vershigora and T. P. Danil'chuk. Differentiation of Indicator Bacteria by Infrared Spectroscopy	374
G. P. Kalina, V. G. Mitereva, and I. N. Titova. Possibilities of Infrared Spectroscopy for Identification and Differentiation of Microorganisms	378
N. V. Vershinin and A. V. Terman. Dosimetric Investigation of Accidents Involving Sealed Radiation Sources	384
V. M. Malykhin, V. P. Shamov, and E. I. Safronov. Possibility of Direct and Indirect Estimation of Dose Loads Due to Incorporated Sr^{90}	388

SOCIAL HYGIENE, HISTORY OF HYGIENE,
AND PUBLIC HEALTH ADMINISTRATION

A. G. Sukharev. Development of Hygiene of Physical Education for Children and Adolescents in the USSR	394
V. P. Monakhov. Techniques for Studies of Utilization of Working Time by Public Health Physicians and their Assistants	398
A. P. Il'nitskii. Some Ways of Improving the Sanitary-Epidemiological Services	404
(Contd)	
Available from CFSTI TT 69-55003/1	

GIGIYENA I SANITARIYA
Vol 34, No 1-3, 1969

REVIEWS

A. D. Ado and O. G. Alekseeva. Modern Concept of Chemical Allergens and Methodological Approaches to their Study	407
G. I. Oksengendler. Criteria for Design and Arrangement of Operators' Workplaces in Centralized Control Systems	412

DISCUSSIONS AND READERS' COMMENTS

S. V. Miller, B. A. Katsnel'son, and B. T. Velichkovskii. Concerning the Need for Maximum Permissible Concentrations of Carcinogens (A Propos of a Discussion)	418
--	-----

FIELD REPORTS

B. M. Duchinskii and G. O. Porokhnitskaya. Investigation of Groundwater Pollution by Effluents from Filtration Fields	422
A. M. Osherovich and G. S. Chasovnikova. Some Results of a Virologic Investigation of Environmental Sources	424

COMMUNICATIONS IN BRIEF

F. I. Dubrovskaya and Yu. V. Abramova. New Data on Atmospheric Pollution from the Manufacture of Fat Substitutes	428
A. A. Minaev. Concentration of 3,4-Benzpyrene in Automobile Exhaust Gases as a Function of the Operation Regime and the Gasoline Grade	430
V. A. Kononova. Some Data on Air Pollution by Exhaust Gases from Motor Vehicles in Large Villages	432
A. A. Dinerman and N. A. Lavrent'eva. Toxicity of Propazin and "Prometrin"	433
S. Ya. Naishstein. Sanitary State of Certain Water Bodies in the Ukraine, in Relation to the Use of Pesticides in the National Economy	436
E. A. Gel'tishcheva, V. A. Khrustaleva, S. K. Nenasheva, and N. N. Liz'ko. Hygienic Assessment of Paper Laminate Used as Furniture Finish in Children's Institutions	438
S. K. Amangel'din. Working Conditions at Modern Coke Ovens	441
Available from CFSTI TT 69-55003/1	(Contd)

GIGIYENA I SANITARIYA
Vol 34, No 1-3, 1969

CONGRESSES · MEETINGS · CONFERENCES ·
SCIENTIFIC SOCIETIES

A. A. Minkh. Session of the Academy of Medical Sciences of the USSR and Plenary Session of the Central Committee of the All-Union Scientific Society of Hygienists and Sanitary Physicians in Irkutsk	444
A. V. Mnatsakanyan. Second Congress of Hygienists, Epidemiolo- gists, Microbiologists and Infectious Disease Specialists of the Armenian SSR	448

OBITUARIES

In Memoriam: S. S. Blokh	450
In Memoriam: R. N. Budrin	450

BOOK REVIEWS

V. A. Gorbov. Underground Filtration Devices for Household Sewage, by E. I. Goncharuk	452
Z. G. Frenkel' and T. S. Soboleva. Hungarian Statistical Manual . . .	454

CURRENT EVENTS AND INFORMATION	457
--	-----

Available from CFSTI TT 69-55003/1

Table of Contents

No. 4	Page
D. V. Gorfin. Public Health Problems in Lenin's Works	3
O. P. Shalamberidze. Concurrent Effects of Low SO ₂ and NO ₂ Concentrations in Long-Term Experiment	11
I. A. Veldre. Hygienic Standards for Orcin in Water Bodies	16
M. N. Grigor'eva. Hygienic Assessment of Floor-Ceiling Contour System of Central Heating	19
I. D. Gadalina, N. I. Kaznina, G. M. Kuznetsova, and N. S. Smirnitskii. Hygienic Assessment of Polyester Plastics for Flooring	25
Yu. D. Gubernskii, F. F. Lampert, M. V. Rummyantseva, and Yu. G. Fel'dman. Hygienic Aspects of Multistory Apartment Houses	29
A. M. Vyalov and P. I. Shpil'berg. Effect of Magnetic Fields in Industry on Central Nervous System (EEG Data)	33
V. V. Dobrynina and A. A. Golubev. Hygienic Standards for Allyl Cyanide in the Air of Factories	39
N. P. Maslova. Effect of Lighting in Working Premises on Vision of Adolescents	43
N. T. Lebedeva. Effect of Motor Activity on Certain Bodily Functions of Junior Schoolchildren	47
V. D. Belyakov, I. A. Shifrin, R. I. Beislekhem, G. I. Nedbai, and P. N. Yakunin. An Outbreak of Food Poisoning Caused by Salmonella amager	51
SOCIAL HYGIENE, HISTORY OF HYGIENE, AND PUBLIC HEALTH ADMINISTRATION	
A. I. Shtreis. Max Von Pettenkofer (On the Occasion of the 150th Anniversary of his Birth)	55
(Contd)	
Available from CFSTI TT 69-55003/2	

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

B. Ya. Smulevich. Concerning the Laws of Population in Capitalist and Socialist Countries	58
L. K. Khotsyanov and I. F. Livchak. Concerning the Necessity for Improved Sanitary Supervision and Engineering Competence in Air Pollution Control	63
I. K. Medchuk. Experience of a District Hospital in the Dissemination of Medical and Hygienic Knowledge	68

METHODS OF INVESTIGATION

T. V. Solov'eva. Determination of N-Methylpiperazine in Air	71
G. S. Salyamon. Concurrent Determination of Isopropylbenzene Hydroperoxide and Phenol, Epichlorohydrin or Methanol and Formaldehyde, and Other Analogous Vapors in Air	72
A. P. Lineberga. Spectrometric Determination of Phenazon in Blood Serum and Air	79
T. M. Urusova. Determination of Tungsten, Cobalt and Titanium in Mixtures	83
G. F. Vylegzhanina and R. G. Kalmykova. Detection of DDVP in Vegetable Matter, Soil and Water by Thin Layer Chromatography.	86
L. S. Samosvat. Determination of Residual Herbicides in Biological Sources by Thin Layer Chromatography	88
M. Kh. Khachatryan. Concerning the Application of the "Range" Test to Hygienic Investigations	91
M. D. Lebedev. A Portable Thermostatic Case for the Drying, Transport and Storage of Personal Dosimeters	94

REVIEWS

Yu. G. Fel'dman and V. N. Kurnosov. Air Pollution of Cities by Photooxidants and Its Effects on Man	97
N. A. Pavlovskaya. Build-Up and Distribution of Thorium Isotopes in Man and Animals	101

DISCUSSIONS AND READERS' COMMENTS

N. V. Sobol', A. Kh. Breger, and A. A. Petushikov. Concerning Air Change Standards for the Working Chambers of Powerful Radiation Units	107
	(Contd)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

V. E. Polyak. Further Remarks Concerning Natural Lighting in Classrooms	112
---	-----

FIELD REPORTS

T. M. Snitkovskaya and G. F. Dregval . Determination of Organochlorine Compounds Liberated into Air by Glue Compositions	114
A. I. Bepalov and V. N. Bolovina. Experience of a Regional Sanitary-Epidemiological Center in Eliminating Air Pollution from Burning Mine Dumps in the Rostov Region	115
A. D. Ignat'ev and Yu. G. Maksyukova . Toxicological Investigations in Collaboration with Economic and Technological Organizations	118
I. I. Borovkov. Reduction of Recording Time for Beta Radiation by Means of Paired End-Counters	119

COMMUNICATIONS IN BRIEF

M. T. Takhirov. Hygienic Standards for Acetic Acid and Acetic Anhydride in Air	122
O. N. Shemyakina. Assessment of the Pollution of a Water Body with Organic Substances by Adsorption on Active Carbon and Extraction with Solvents	126
L. F. Kulikova and L. I. Slin'ko. Development of Secondary Sexual Characteristics and Certain Anthropometric Indices among Adolescent Girls in Kharkov	129
V. I. Bugrova, T. M. Fedorova, N. E. Vinogradova, V. N. Zhitkova, A. I. Marinina, V. P. Osanova, Yu. P. Pavlova, and E. A. Titova. Concerning Bacteriological Indices for Cooked Sausages	132
Z. F. Turuk-Pchelina and A. M. Torchinskii. Certain Hygienic Aspects of the Design of Large Cold Storage Installations	134

CONGRESSES • MEETINGS • CONFERENCES •
SCIENTIFIC SOCIETIES

N. V. Dogle and A. I. Kokoshko. Activities of the Section for Social and Statistical Research in Labor Hygiene	137
T. A. Yappo. All-Union Scientific Conference on Educational Hygiene	139

(Contd)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

ANNIVERSARIES

A. M. Merkov's 70th Birthday	141
------------------------------------	-----

BOOK REVIEWS

I. A. Kibal'chich. Reservoirs of Hydroelectric Stations in the USSR, by A. B. Avakyan and V. A. Sharapov	143
V. M. Retnev and R. G. Proektor. Nervous Strain Caused by Noise, by G. Jansen	144
G. P. Kalina. Problems of the Etiology and Diagnosis of Food Poisoning.	145
I. I. Belyaev. Essays on Human Physiology and Hygiene in the Far North, by I. S. Kandror	146
Ya. M. Grushko. Living Conditions and Health, by F. G. Krotkov and A. V. Bykhovskii	148
Z. I. Izrael'son and S. V. Suvorov. Toxicological Assessment of Volatiles Liberated by Synthetic Materials, by V. E. Balashov, V. D. Bartenev, I. V. Savitskii and I. M. Trakhtenberg	150
CURRENT EVENTS AND INFORMATION	152

No. 5

B. M. Potulov. Public Health Problems in Lenin's Works	157
A. M. Izutkin. Social Hygiene and the Current Ideological Struggle ...	164
B. R. Vitvitskaya. Permissible Residual Amounts of New Cation Flocculants in Drinking Water	169
G. L. Rozhnov. Comparative Hygienic Characteristics and Standards for the Herbicides "Pentamate" and "Hexamate" in Water	174
M. Kh. Khachatryan, E. V. Mitarevskaya, and G. A. Egorenkov. Effect of Long-Term Exposure of Experimental Animals to Phenol Combined with Carbon Monoxide on the Functional State of the CNS.	178
L. L. Karagodina, S. A. Soldatkina, I. L. Vinokur, and A. A. Klimukhin. Effect of Aircraft Noise on the Population Near Airports	182

(Contd)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

F. A. Lazutka, A. D. Vasilyauskene, and Sh. G. Gefen. Toxicological Assessment of the Insecticide Nicotine Sulfate	187
M. F. Nesterova. Standards for Carbathion in Working Zone Air	191
E. A. Soboleva. Concerning Nitrates in Vegetables	196
N. M. Popova. Hygienic Assessment by Electrooculography of Typographic Quality of Children's Books	199
R. A. Dubinskii. Physical Development of Newborn Babies in Districts with Different Levels of Background Radiation	204
I. S. Sobol'. Reducing the Irradiation of Patients in Diagnostic Radiology	209

SOCIAL HYGIENE, HISTORY OF HYGIENE,
AND PUBLIC HEALTH ADMINISTRATION

N. N. Khvostov. Industrial Radiation Hygiene During the Fifty Years of Soviet Government	215
P. P. Lyarskii. Examination of Designs by Hygienic Experts: the Most Important Link in the System of Preventive Health Inspection ..	218
A. L. Shafir, N. P. Panshinskaya, and K. K. Poplavskii. The Petersburg-Leningrad Chemical and Bacteriological Laboratory (1891-1935)	222
O. B. Barskii. On the Hygienic Aspect of Singing Lessons for Adolescents	225

METHODS OF INVESTIGATION

M. T. Dmitriev and N. A. Kitrosskii. Determination of Amino and Cyano Compounds in Air by Ionization Chromatography	227
V. A. Tsendrovskaya and I. S. Reisig. Photocolorimetric Determination of Isopropylbenzene Hydroperoxide in Air	233

REVIEWS

E. Ts. Andreeva-Galanina, S. V. Alekseev, Yu. M. Il'yashuk, and A. V. Kadyskin. Studies of the Effects of Noise on Man	236
--	-----

ABROAD

S. Čupka, M. Petrašová and L. Carach. Environmental Radioactive Contamination in Western Slovakia	242
---	-----

(Contd)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

DISCUSSIONS AND READERS' COMMENTS.

I. I. Belyaev and R. D. Gabovich. Meditations on the Future of General Hygiene	245
V. Z. Martynyuk and B. M. Shtabskii. "Sanology" and Hygiene ..	249

FIELD REPORTS

E. L. Lobataya and L. A. Lyakh. Certain Shortcomings of a Standard Design for Radiological Buildings	253
V. V. Popov, A. A. Svishchev, and L. K. Polezhaev. Rural Water Supply in Pavlodar Region	254
D. I. Chichikalo, I. A. Minskii, A. V. Borkovets, and A. G. Polyakova. Efficiency of the New Ventilation System for Spinning Machines in the Cherkassy Rayon Factory	257
Yu. V. Marich and V. D. Borskii. Determination of Benzene in Paints, Varnishes, Glues and Solvents	259

COMMUNICATIONS IN BRIEF

B. A. Nemenko and N. A. Mazina. Determination of 3,4-Benzpyrene in Air	264
V. A. Gofmekler and T. I. Bonashevskaya. Experimental Studies of Teratogenic Properties of Formaldehyde, Based on Pathological Investigations	266
M. I. Nekipelov. Noise in Populated Areas Around the Irkutsk Airport	269
V. M. Nizhegorodov and Ya. L. Markhotskii. Effect of Low Concentrations of Carbon Monoxide and Nitrogen Oxides on Vitamin B ₆ Metabolism and Requirements in Animals	272
B. M. Shtabskii, M. I. Gzhegotskii, and V. Z. Martynyuk. Effect of Long-Term Poisoning with the Herbicide Trichloropropionitrile on the Progeny of Albino Rats	274
G. I. Sidorenko, Yu. P. Pivovarov, and V. S. Nichiporuk. Concerning Possible Methods of Contamination of Sausage Meat by Cl. perfringens	278
Ya. K. Babutsidze, A. P. Daraseliya, O. S. Kavtaradze, and V. P. Shlamova. Comparative Hygienic Assessment of Children's Suits of Nonwoven Textiles with Capron Fiber	279
V. M. Shubik. Effect of Sr ⁹⁰ and Ca ¹³⁷ on General Immunological Reactivity of Animals	282

(Contd)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

Z.V. Dubrovina, M. Yu. Dol'matova, P. M. Malkin, G. E. Sharonov, and A. P. Panteleeva. Protective Effect of Alginic Acid and Sodium Alginate in Gases of Radioactive Elements Ingested through the Gastrointestinal Tract	286
--	-----

SYNOPSIS OF REPORTS

B. I. Gol'denberg, D. A. Frolov, and B. M. Duchinskii. Practical Experience in Sanitary Examination of Milk and Dairy Products Contaminated with DDT.	290
P. I. Ivanov, V. I. Markov, and O. F. Buzinaev. Sanitary Characteristics of Housing and Communal Construction in the Yakut ASSR	291
G. P. Kalina. Certain Modifications of Selective Culture Media for Enterococci	292
M. K. Kerimov. Sanitary Characteristics of Schools in the Buinaksk District of the Dagestan ASSR	293
F. D. Krivoruchko. Photometric Determination of 3-Chloro-1- Bromopropane, 3-(1-Methylpiperazyl-4)-Chloropropane and Bromobenzene in Air	293

CONGRESSES · MEETINGS · CONFERENCES ·
SCIENTIFIC SOCIETIES

K. K. Vrochinskii. Certain Topical Aspects of the Hygiene of Pesticides, According to the Proceedings of the Fourth All- Union Scientific Conference on the Hygiene and Toxicology of Pesticides	295
V. M. Mogilyantseva. Conference of Young Scientific Workers	297

ANNIVERSARIES

L. S. Gurvich's 70th Birthday	300
Sh. G. Khachidze's 60th Birthday	301

OBITUARY

In Memoriam: I. S. Koryakin	303
-----------------------------------	-----

(Contd)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

BOOK REVIEWS

A. P. Mukhin and B. M. Khromov. Health of the World Population in the Twentieth Century, A Social-Hygienic Investigation, by Yu. A. Dobrovolskii	305
N. N. Trakhtman and G. I. Murav'eva. The Physiological Basis of Health Standards for Dwellings, by M. S. Goromosov	308
K. P. Kedrov. Handbuch der Sozialhygiene	309
O. V. Perov. A Practical Course in Hygiene, edited by G. A. Miterev	310
REPORT ON THE JOURNAL "HYGIENE AND SANITATION" FOR THE YEAR 1968	312

No. 6

F. G. Krotkov. The Experimental Approach in Hygiene and the Establishment of Hygienic Standards	319
D. N. Kalyuzhnyi and M. V. Kryzhanovskaya. Future Trends in Scientific Research on the Hygiene of Populated Areas	323
G. Kh. Shakhbazyan. On Future Trends in Scientific Work in the Field of Labor Hygiene	327
F. I. Dubrovskaya. One-Time Maximum Concentration of Caproic Acid in Air	331
R. D. Gabovich, K. K. Vrochinskii and I. L. Kurinnyi. Decolorization, Deodorization and Decontamination of Drinking Water by Ozonization	336
L. I. El'piner, A. I. Bokina, and Yu. B. Shafirov. Hygienic Assessment of Water Desalinated by Evaporation	341
G. V. Lomonova. Maximum Permissible Concentration of Diuron in the Air of Working Premises	347
K. M. Ayanyan and T. I. Bulatova. Resistance to Heat of Cl. botulinum Spores: Data from Studies of Soil Contamination in the Armenian SSR	351
L. A. Kuznetsova. Combined Effect of Industrial Environmental Factors on Adolescent Girls Being Trained as Roving-Makers	355
	(Contd)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

A. I. Vaisman. Major Hygienic Problems Involved in Work of Anesthesiologists	359
A. P. Shitskova, O. N. Elizarova, and R. A. Ryazanova. Modern Approaches to Establishment of Hygienic Standards for Pesticides in Foodstuffs	364
E. N. Stratonova. <i>C. parfringens</i> Type A as the Causative Agent of Acute Gastrointestinal Disorders in Young Children	370
M. M. Muratov. Concerning Temperature Standards for Group Rooms of Kindergartens in the Fourth Climatic Zone in Winter ...	375
A. D. Al'terman, L. S. Ruzer, and S. A. Urusov. Assessment of Radiation Conditions in the Mining of Nonradioactive Ores by Monitoring the Irradiation of Lungs by Gamma Radiation from the Chest.	379

SOCIAL HYGIENE, HISTORY OF HYGIENE, AND
PUBLIC HEALTH ADMINISTRATION

H. Müller-Dietz. Concerning F. F. Erlsman's Concept of Social Hygiene (An Unpublished Letter of the Great Hygienist)	387
G. V. Astaf'eva. V. A. Levitskii, An Eminent Hygienist and Public Figure	390
M. I. Karachunskaya. Scientific Medical Information at the Service of Science	394

METHODS OF INVESTIGATION

M. S. Petrova and G. V. Peskova. Volumetric Determination of Air Humidity	398
M. K. Pakter. A New Method for Determination of Mercury in Air ...	401
Yu. V. Novikov, A. F. Aksyuk, and A. N. Lentochnikov. Spectrographic Determination of the Mineral Composition of Bone Tissue in Hygienic Investigations	405
M. Kh. Khachatryan and E. V. Mitarevskaya. Variation in the Time Parameters of Human Primary Responses to Light Under the Influence of Low Concentrations of Caproic Acid Vapor.	410
P. M. Zaitsev and L. P. Nesterova. Indirect Polarographic Determination of Cyclohexanoneoxime and Hydroxylamine in Water Bodies Used for Household Water Supply	415

(Contd.)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

REVIEWS

A. A. Sychev. Myopia as a Problem of Social Hygiene	418
A. A. Minkh. Contact Method for Determination of Bacterial Contamination of Various Surfaces	422

ABROAD

K. Horn. Tasks of Environmental Hygiene in the Health Services ...	425
D. Hegedüs, B. Róna, K. Meretei, and P. Szabo. Activities of the Department of Child and Adolescent Hygiene of the State Health Institute in Budapest	427

FIELD REPORTS

L. A. Shvetsov. Hygienic Evaluation of Standard Designs for Hospitals	430
Kh. Ya. Vengerskaya and V. V. Tarasov. Concerning the Determination of Gasoline in the Air of Working Premises	433
V. A. Yavrumov. Pathogenic Coliform Bacteria in Environmental Sources in Kaluga	435
N. N. Ter-Karapetyants. Sanitary Measures by an Inter-Kolkhoz District Hospital in a Highland District	436

COMMUNICATIONS IN BRIEF

N. V. Grin'. Certain Indices of the Functional State of Animals Exposed to Inhalation of Siliceous Dust in Air	438
N. G. Andreeshcheva. Determination of Microconcentrations of Aromatic Amines in Air	441
E. V. Govorukha. Sanitary Assessment of Effluents from Meat-Packing Plants	443
P. V. Nefedov. Effect of Various Doses of Short Wave UV Radiation on the Coagulative System of Dogs' Blood	447
M. D. Babina. Spectrophotometric Determination of Styrene and Benzaldehyde Occurring Together in Air	450
V. A. Mikhailov, L. Ya. Tartakovskaya, E. M. Neizvestnova, and L. F. Mavrinskaya. Experimental Investigations of the Combined Effect of Manganese and Vibration	452

(Contd)

Available from CFSTI TT 69-55003/2

GIGIYENA I SANITARIYA
Vol 34, No 4-6, 1969

N.B.Krichagina and N.G.Prokof'eva. Studies of Heat Strain In Workers of Confectionery Factories	454
A.M.Akimov. Concerning Bac. cereus Contamination of Various Foodstuffs	456
V.Ya.Golikov and L.A.Bakulina. An Investigation of I^{131} in the Air of a Radiological Department	459
M.A.Nevstrueva, V.M.Shubik, and R.E.Livshits. Effect of Sr^{90} on Certain Indices of Natural Immunity	461

SYNOPSIS OF REPORTS

A.V.Brem. Effect of Effluents from a Pulp and Cardboard Mill on the Purification of Municipal Effluents	466
EN.Ivanova. Survival of Certain Indicator Microorganisms and the Causative Agents of Food Poisonings in Fried Fish Dishes Heated for Different Periods	467
A.P.Il'nitskii and A.Ya.Khesina. Effect of the Distribution of 3,4-Benzpyrene in a Medium, as well as the Effect of pH and Temperature on the Rate of Destruction of this Substance by Ozone.	467
B.I.Karpukhin. Data for Hygienic Standards for Dust of Electro- Grade Shale Coke in the Working Zone Air	468
Yu.V.Makarov, S.K.Starikova and B.A.Katsnel'son. Electrical Charge on Dusts in the Manufacture of Certain Refractories	469
E.V.Osmolovskaya and D.A.Gratsianov. Effect of Various Doses of Molybdenum on Animals	470

CONGRESSES • MEETINGS • CONFERENCES •
SCIENTIFIC SOCIETIES

N.M.Dantsig. All-Union Conference on the Biological Effects of UV Radiation	472
Yu.M.Aliev and V.D.Vaksova-Krupnik. Congress of Azerbaijani Hygienists and Public Health Physicians	475

OBITUARIES

In Memoriam: N.F.Galanin	477
--------------------------------	-----

(Contd)

Available from CFSTI TT 69-55003/2

BOOK REVIEWS

- Z.G.Frenkel' and T.S.Soboleva. Numerical Data on Moscow
During the Soviet Period, 1917-- 1967: a Brief Statistical Handbook;
Leningrad Over the Fifty Years: a Statistical Collection 479

Available from CFSTI TT 69-55003/2

CONTENTS

	Page
<i>Veselinka M. Galogaža:</i> A Study of Invertase From a Thermotolerant Strain of <i>Saccharomyces cerevisiae</i>	5
<i>Sreten N. Mladenović and Milenko Gemović:</i> Polarographic Determination of Lead in the Presence of Tin	19
<i>Sreten N. Mladenović:</i> Polarographic Determination of Copper in the Presence of Cadmium and Zinc	23
<i>Miodrag D. Jančić and Ljiljana M. Radonjić:</i> The Mechanism of Formation of New Phases in the Silicon-Manganese System	27
<i>Đorđe K. Stefanović, Vilim J. Vajgand and Tibor A. Kiš:</i> Oscillographic-Chronopotentiometric Titration. II. Influence of Direct Current and of the Composition of the Titrated Solution on the Accuracy	35
<i>Jelena J. Bojanović, Predrag P. Milošević, Ružica M. Kovačević, and Olga Đorđević-Camba:</i> Effect of Insulin on the Metabolism of Proteins, Lipids, and Glucides. XI. Effect of Successive Hyperinsulinemias on Rat Liver Glycogen Level	41
<i>Mita M. Skorobrišin:</i> Influence of Activator Concentration on the Fluorescent Properties of $\text{AgCl}(\text{Mn}^{++})$ Single Crystals	47
<i>Miodrag D. Jančić and Ljiljana M. Radonjić:</i> Kinetics of Formation of New Phases in the Systems Silicon-Manganese	51
<i>Jelena B. Jorgović-Krenzer:</i> Ultraviolet Spectra of Some Organophosphorous Insecticides in Different Solvents	59
<i>Naim H. Afgan, Bojan D. Đorđević and Aleksandar Ž. Tasić:</i> Frames of Reference in the Study of Diffusion in Binary Systems	67
<i>Željko A. Kučer, Boško J. Drašković, and Ilija D. Burić:</i> Photoluminescence of Yohimbine Boric Acid Phosphor	75
<i>Vera Č. Štepanović and Slobodan D. Radosavljević:</i> Some Factors Influencing the Crystallization of Aluminum -III-Fluoride From Supersaturated Solutions	79
<i>Slobodan D. Radosavljević and Vera Č. Štepanović:</i> Phosphorus in Crude Fluorosilicic Acid	85
<i>Đorđe K. Stefanović, Vilim J. Vajgand and Tibor A. Kiš:</i> Oscillographic-Chronopotentiometric Titration. III. Influence of the a.c. Circuit Parameters and the Electrodes on the Accuracy	91
<i>Đorđe K. Stefanović, Vilim J. Vajgand, and Tibor A. Kiš:</i> Oscillographic-Chronopotentiometric Titration. IV. Redox and Precipitation Titrations	99

Available From CFSTI TT 68-50056/5-6-7

RUSSIAN METALLURGY

English translation of

IZVESTIYA AKADEMII NAUK SSSR

METALLY

The journal covers ferrous and non-ferrous metallurgy, including ore beneficiation, extraction and refining, mechanical properties at ordinary and elevated temperatures, alloy compositions and structures, effects of impurities and methods of purification, methods of testing both for routine examination and for research investigations, etc. Increasing attention is being paid to metals and alloys with new properties, such as, very high strength, resistance to high temperatures, radiation and corrosion, superconductor and semiconductor materials.

Bimonthly

© Scientific Information Consultants Ltd., 661 Finchley Road, London, N.W.2

<u>LIST OF CONTENTS</u>	<u>1969, No. 1</u>	<u>Page</u>	<u>orig. transl.</u>
Bochvar A. A. THE WORK OF D.K. CHERNOV IN THE FIELD OF METAL SCIENCE AND ITS IMPORTANCE TO MODERN SCIENCE (Abstract)		4	
Prokoshkin D. A. PRESENT DAY DEVELOPMENTS FROM THE FINDINGS OF D.K. CHERNOV ON THE HARDENING OF STEEL (Abs.)		4	
Kurdyumov G. V., Entin R. I. THE STRUCTURE OF MARTENSITE AND THE STRENGTH OF STEEL (Abr. tr.)	31	5	
Sadovskiy V. D. RECRYSTALLISATION OF THE NEW PHASE DURING HEATING OF STEEL (Abr. tr.)	40	10	
Grigorevich V. K. THE POLYMORPHISM OF IRON AND THE ELECTRON STRUCTURE OF IRON ALLOYS (Abr. tr.)	53	17	
Starodubov K. F. CONTRIBUTION OF THE SCIENTISTS OF THE UKRAINIAN ACADEMY OF SCIENCES TO METAL SCIENCE (Abs.)	69	29	
Samarin A. M. D.K. CHERNOV AND MODERN STEELMAKING (Abs.)	77	30	
Golovin A. F. ON THE LIFE AND WORK OF D.K. CHERNOV (1839-1921) (Abs.)	83	30	
Fedorchenko V. I., Averin V. V., Samarin A. M. KINETICS OF NITROGEN DISSOLUTION IN NICKEL-BASED ALLOYS (Abr. tr.)	102	(31 Contd.)	

Available From Scientific Information Consultants

IZVESTIYA AKADEMIY NAUK SSSR, METALLY

No 1, 1969

Minayev Yu.A., Grigoryan V.A. SOME FEATURES OF THE RATE OF DESULPHURISATION BY REACTION BETWEEN A SLAG AND DROPLETS OF PIG IRON (Abr.tr.)	112	38
Muratov A.M., Kulikov I.S. SOLUBILITY OF SULPHUR IN $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-CaO-MgO}$ SLAGS (Abr.tr.)	115	41
Kukhtin B.A., Boronenkov V.N., Esin O.A., Toporishchev G.A. KINETICS OF REDUCTION OF MANGANESE IN MOLTEN SLAGS BY MEANS OF SOLID CARBON (Abr.tr.)	119	43
Fetisov V.B., Leont'yev L.I., Ivanova S.V., Belyayeva N.N. and Kudinov B.Z. MECHANISM OF REDUCTION OF IRON METATITANATE (BY HYDROGEN) (Abr.tr.)	125	47
Deryabin A.A., Popel' S.I., Saburov L.N. VARIATIONS IN INTERFACIAL TENSION IN A NON- EQUILIBRIUM METAL - SLAG SYSTEM (Abr.tr.)	129	50
Chizhikov D.M., Karyazina I.N., Blokhina L.I. EFFECT OF WATER VAPOUR ON THE KINETICS OF SODIUM ALUMINATE FORMATION (Abr.tr.)	136	55
Sandler R.A., Kholmovskaya N.A., Yaskelyaynen E.I. REMOVAL OF ALUMINIUM WITH METALLIC TITANIUM FROM FUSED CHLORIDE BATHS (Abr.tr.)	143	60
Kazenas E.K., Chizhikov D.M., Tsvetkov Yu.V. THERMODYNAMICS OF THE SUBLIMATION AND DISSOCIATION OF ZINC OXIDE (Abr.tr.)	150	65
Pavlov I.M., Tot Ya.A. ANISOTROPY OF THE STEELS O8KP AND O8Yu	154	68
Pavlov I.M., Tot Ya.A. DEEP DRAWING PROPERTIES OF STEELS O8KP AND O8Yu	158	71
Pavlov I.M., Tot Ya.A. CORRELATION BETWEEN THE MECHANICAL TEST RESULTS AND EAR FORMATION IN STEELS	161	73
Brovman M.Ya. DEFORMATION OF ANISOTROPIC BODIES (Abs.)	164	76
Agayev N.V., Kas'kova L.G., Babereko A.A. BEHAVIOUR OF SINGLE CRYSTALS OF CHROMIUM AND Cr - 0.7% ZIRCONIUM ALLOY UNDER COMPRESSION (Abr.tr.)	171	77
Bochvar O.S., Pokhodayev K.S., Sinanyan L.G. AGEING OF THE Al-BASE AK4-1T ALLOY (Abr.tr.)	179	82
Kator L., Nyulasz P. INVESTIGATION OF THE RELATIONSHIPS GOVERNING PLASTIC DEFORMATION IN TENSILE TESTS (Abr.tr.)	184	85
Merenkova R.F., Rovinskiy B.M., Rybakova L.M. EFFECT OF THE INITIAL STRUCTURE OF A METAL ON CYCLIC PLASTIC DEFORMATION (Abr.tr.)	188	89
Okhrimenko Ya.M., Tyurin V.A. PHYSICAL CHANGES ASSOCIATED WITH NON-UNIFORM DEFORMATION	194	93 (Contd)

Available From Scientific Information Consultants

IZVESTIYA AKADEMIY NAUK SSSR, METALLY
No 1, 1969

Klyucharev N. A. CERTAIN RELATIONSHIPS GOVERNING THE RESISTANCE OF PURE METALS TO SMALL DEFORMATIONS (Abr. tr.)	197	96
Ivanov O. S. AN ALGEBRAIC METHOD OF REPRESENTING EQUILIBRIUM DIAGRAMS FOR MULTI-COMPONENT SYSTEMS (Abr. tr.)	204	102
Vorob'yeva L. P., Gulyayev A. P., Druzhinina I. P. RELATIONSHIPS GOVERNING THE VARIATIONS IN THE PROPERTIES OF BINARY VANADIUM ALLOYS (Abr. tr.)	210	106
Svechnikov V. N., Shurin A. K., Dmitriyeva G. P. PHASE DIAGRAM OF THE SYSTEM Hf-Co	214	109
Drits M. E., Kadaner E. S., Nguyen Din Shoa SOLID SOLUBILITY OF RARE EARTH METALS IN ALUMINIUM (Abr. tr.)	219	113
Savel'yeva M. M., Grum-Grzhimaylo N. V. PHASE DIAGRAM OF Nb-Zr-Cr ALLOYS (Abr. tr.)	224	117
Baum B. A., Tyagunov G. V. RELATIONSHIPS BETWEEN THE SOLID PROPERTIES OF STEELS AND ALLOYS IN THE SOLID AND LIQUID STATES	229	121
Markhasev B. I. A PHYSICO-CHEMICAL MODEL OF AN OXIDE-CONTAINING LIQUID METAL	234	126
Povolotskiy D. Ya., Roshchin V. E. INVESTIGATION OF THE DIFFUSION OF ALUMINIUM IN LIQUID IRON	239	131
Vandyshev B. A., Panov A. S. DIFFUSION OF SULPHUR IN VANADIUM AND TANTALUM (Abr. tr.)	244	134
Rytvin E. I., Ulybysheva L. P. THE MECHANISM OF VOLATILISATION AND OXIDATION OF PLATINUM, PALLADIUM AND THEIR ALLOYS (Abr. tr.)	247	136
Revyakin A. V. (Compiler) SYMPOSIUM ON METALLURGY AND METAL SCIENCE, DEVOTED TO THE 100th ANNIVERSARY OF THE DISCOVERY OF THE POLYMORPHISM OF IRON BY D. K. CHERNOV	253	140

Available From Scientific Information Consultants

RUSSIAN METALLURGY

English translation of

IZVESTIYA AKADEMII NAUK SSSR

METALLY

The journal covers ferrous and non-ferrous metallurgy, including ore beneficiation, extraction and refining, mechanical properties at ordinary and elevated temperatures, alloy compositions and structures, effects of impurities and methods of purification, methods of testing both for routine examination and for research investigations, etc. Increasing attention is being paid to metals and alloys with new properties, such as, very high strength, resistance to high temperatures, radiation and corrosion, superconductor and semiconductor materials.

Bimonthly

© Scientific Information Consultants Ltd., 661 Finchley Road, London, N.W.2

LIST OF CONTENTS

1969, No. 2.

	Page	orig.	transl.
Pokhvisnev A.N., Yusfin Yu.S., Spektor A.N., Yusupkhodzhaev A.A., Bazilevich T.N., Stepin G.M. INVESTIGATION OF THE METALLURGICAL PROPERTIES OF FLUXED IRON-ORE PELLETS AND OTHER FORMS OF METALLURGICAL RAW MATERIALS (Abr.tr.)	3	4	
Volkov S.E., Bekezin K.P., Voynovskiy E.V., Gubin P.V., Topilin V.V., Polyakov A.Yu., Samarin A.M., Kosyrev L.K. MELTING OF STAINLESS STEEL IN A VACUUM INDUCTION FURNACE USING SOLID DESULPHURISING AGENTS	10	8	
Glinkov M.A. POSSIBLE DEVELOPMENTS OF THE OPEN-HEARTH PROCESS USING LIQUID IRON	14	12	
Kleyn A.L., Mikhaylikov S.V., Lazareva E.G. DETERMINATION OF THE REACTIVITY OF SOLID OXIDISING AGENTS USED IN STEELMAKING	24	18	
Glazov V.I., Klemeshov G.A., Dorokhov V.I. RATE OF REMOVAL OF OXIDES OF ZIRCONIUM, MANGANESE AND CHROMIUM FROM LIQUID IRON (Abr.tr.)	28	21	
Malinovskiy E.I., Voronov V.A. ADHESION OF SOME OXIDES TO MOLTEN 30KhGSNA STEEL	33	24	
Rostovtsev L.I., Larin V.K. SKIN FORMATION ON MOLTEN HIGH-CHROMIUM STEELS	40	30	
Kondrat'yev A.I. GRAPHICAL METHOD OF CALCULATING THE SOLUBILITY OF NITROGEN IN LIQUID IRON ALLOYS (Abr.tr.)	44	34	(Contd)

Available From Scientific Information Consultants

IZVESTIYA AKADEMIY NAUK SSSR, METALLY

No 2, 1969

Kulikov I.S. OXIDISABILITY OF IRON-OXYGEN MELTS AND THEIR THERMODYNAMIC STABILITY (Abr. tr.)	50	38
Dobrivinskiy R. Yu., Balakirev V. F., Men' A. N., Chufarov G. I. CALCULATION OF THE ACTIVITY OF NORMAL MAGNETITE IN A $\text{FeCr}_{2c}\text{Fe}_{2(1-c)}\text{O}_4$ SOLUTION	53	40
Ershov G. S., Novokhatskiy I. A. REDUCTION OF CALCIUM OXIDE BY IRON MELT COMPONENTS (Abr. tr.)	56	43
Kazenas E. K., Chizhikov D. M., Tsvetkov Yu. V. THE DISSOCIATION PRESSURES OF COPPER OXIDES (Abr. tr.)	60	46
Timofeyeva E. N., Kustov Yu. A., Beresten' N. E. THERMAL DECOMPOSITION OF NICKEL SALTS AND REDUCTION OF NiO WITH HYDROGEN	63	48
Gaprindashvili V. N., Dzhaoshvili O. A., Zedginidze I. G. INCREASING THE REDUCTION EFFICIENCY OF BARIUM SLURRIES	67	50
Anufriyeva N. I., Balashova Z. N. ELECTROLYTIC REFINING OF COMPLEX TITANIUM ALLOY CHIPS (Abr. tr.)	69	53
Vigdorovich V. N., Marychev V. V., Kolesnev A. P. INVESTIGATION OF THE PURIFICATION OF ANTIMONY BY CONTINUOUS ZONE REFINING (Abr. tr.)	75	57
Samoylovich Yu. A. HYDRODYNAMIC PHENOMENA IN THE LIQUID ZONE OF A SOLIDIFYING INGOT (Abr. tr.)	84	63
Pavlov I. M., Tarasevich Yu. F., Shelest A. E. RATIO OF PROOF STRESS TO ULTIMATE STRENGTH OF SOME TITANIUM ALLOYS AFTER THERMOMECHANICAL TREATMENT	93	70
Shestopalov L. M., Sidorov V. A., Alekseyev N. I., Simkin I. N., Stepanov M. I. EFFECT OF LASER RADIATION ON METALS	96	73
Matrosov Yu. I., Gulyayev A. P., Demkin Yu. I. MICROMECHANISM OF THE BRITTLE FAILURE OF HIGH PURITY Fe-Si ALLOYS	105	80
Karlov G. I., Bystrushkin G. S. INVESTIGATION OF FATIGUE IN CHROMIUM STEEL EI-961	110	84
Malinov L. S., Eysmond T. D. STRENGTHENING UNSTABLE AUSTENITIC Cr-Mn-N STEELS	113	86
Vorob'yev G. M., Grechnyy Ya. V., Shmyrev I. P. THE FORMATION OF A SECONDARY RECRYSTALLISATION TEXTURE IN SILICON IRON	121	92
Novikov I. I., Zolotarevskiy V. S., Kuk E. V., Indenbaum S. V. INHERITANCE OF THE CAST STRUCTURE IN HOMOGENISED Al-Mg ALLOYS	125	96
Movchan B. A., Statkevich V. N. INCREASING THE DUCTILITY OF CAST AND RECRYSTAL- LISED MOLYBDENUM ALLOYS BY THE SEPARATION OF THE HIGH TEMPERATURE SECONDARY PHASE	129	101 (Contd)

Available From Scientific Information Consultants

IZVESTIYA AKADEMIY NAUK SSSR, METALLY
No 2, 1969

Upit G. P., Varchenya S. A. HARDNESS OF MONO- AND POLYCRYSTALLINE ALUMINIUM WITH LOADS OF 0.3 TO 10,000 GRAMMES Shteyn V. S.	137	107
POSSIBILITIES AND DIFFICULTIES IN DEVELOPING AN INFORMATION RETRIEVAL SYSTEM FOR METALS TECHNOLOGY Drits M. E., Rokhlin L. L., Zusman L. L.	141	111
DAMPING OF ULTRASONIC OSCILLATIONS IN MAGNESIUM ALLOYS (Abr. tr.) Zhukov A. A.	150	121
IMPROVING THE ACCURACY OF THE METASTABLE EQUILIBRIUM DIAGRAM FOR THE Fe-C-Si SYSTEM Lashko N. F., Morozova G. I., Andreyeva F. S., Tikhonova V. V., Gerasimova M. A.	155	125
PHASE COMPOSITION OF CAST Mg-Zn-Zr ALLOYS Zarechnyuk O. S., Mys'kiv M. G., Ryabov V. R.	159	129
X-RAY STRUCTURAL INVESTIGATION OF THE PHASE COMPOSITION OF Ce-Fe-Al ALLOYS CONTAINING UP TO 33.3 at. % Ce (Abr. tr.) Kornilov I. I., Belousov O. K., Musayev R. S.	164	133
ISOTHERMAL SECTIONS OF THE TERNARY Ti-Zr-Cr PHASE DIAGRAM (Abr. tr.) Eremenko V. N., Lukashenko G. M., Sidorko V. R.	167	135
THERMODYNAMIC PROPERTIES OF Fe-Mn ALLOYS Lyubchenko A. P.	170	137
THE NATURE OF THE MICRODIFFUSION OF ELEMENTS IN CAST IRONS Malkin V. I., Pokidyshev V. V.	177	143
DETERMINATION OF THE THERMODYNAMIC PROPERTIES OF VANADIUM CARBIDE BY THE E. M. F. METHOD Pravoverov N. L., Kolonin Yu. G.	183	149
THE SOLUBILITY OF ZIRCONIUM IN SILVER Amonenko V. M., Pavlov V. S.	188	154
INVESTIGATION OF THE RATE OF OXIDATION OF LANTHANUM Smirnov V. S., Tselesin N. N.	191	156
A FORMULA FOR COMPACTION OF POROUS BODIES Tylkina M. A.	194	158
THIRD ALL-UNION CONFERENCE ON RHENIUM	198	163

Available From Scientific Information Consultants

Table of Contents

Page
Orig. Trans.

Transactions of the Thirteenth All-Union Conference on Emission Electronics
(Moscow, 25 January - 1 February 1968)

Analysis of thermionic emission back-bias curves - A.O.Bogdanov, R.S.Bakhtiyarov, V.M.Pumpurs & B.B.Shishkin	746	689
On trajectories of particles moving in a crystal lattice - M.V.Kuvakin & O.A.Romanyuk	752	694
On the influence of radiation defects in the target on angular effects in the interaction of ions with crystals - E.S.Mashkova & V.A.Molchanov	757	700
Temperature dependence of the ion-electron emission coefficient and structure of the energy spectrum of the secondary electrons - I.N.Evdokimov & V.A.Molchanov	762	704
Emission of alkali metal ions from a (111) face of a silicon single crystal - G.A.Zykov & N.G.Nakhodkin	765	707
On the repulsive potentials of atomic particles in group interaction - V.I.Veksler	772	712
Angular and temperature dependences in scattering of ions by crystals - V.A.Snisar' & V.M.Chicherov	777	717
Energy spectrum of secondary electrons emitted during passage of alpha particles through thin films - V.M.Agranovich, D.K.Daukeev, Yu.V.Konobeev, S.Ya.Lebedev, Yu.Ya.Stavisskii & Yu.V.Chmyrev	780	720
Distribution of stopped atoms in single crystals bombarded with fast atomic particles - V.V.Titov	785	724
Radiation-induced conductivity in semiconductors bombarded with medium-energy particles - I.A.Abroyan, A.I.Titov & L.A.Tsekhnovicher	792	731
Dependence of the ion-electron emission from alkali halide crystals on the incidence angle of slow inert-gas ions - N.F.Volkov, A.I.Kondrashev & N.N.Petrov	798	737
Scattering of alkali ions by single crystals and polycrystalline aggregates - U.A.Arifov, Kh.Kh.Khadzhimukhamedov & A.I.Yunusov	801	739
Sputtering of InSb single crystals by 70 keV argon ions - I.I.Kapusta & S.Ya.Lebedev	806	744
Luminescence of silicon carbide under bombardment by medium-energy charged particles - V.V.Makarov, N.N.Petrov & L.E.Il'evskii	809	747
Angular distributions of atoms sputtered from polycrystalline targets by inert-gas ions - B.M.Gurmin, Yu.A.Ryzhov & I.I.Shkarban	816	752
Interaction potentials and lattice models in ion reflection calculations - D.S.Karpuzov, V.I.Shul'ga & V.E.Yurasova	819	756
On the reasons for the anisotropy in cathode sputtering of poly- crystalline materials - A.I.Krokhina	831	767
Study of oxidation of tungsten by the ion-ion secondary emission method - V.F.Rybalko, V.Ya.Kolot & Ya.M.Fogel'	836	773

(Contd)

Available from Columbia Technical Translations

IZVESTIYA AKADEMIYE NAUK SSSR SERIYA FIZICHESKAYA
Vol 33, No 5, 1969

Opening address - V.L.Levshin	842	778
Production of F centers and electron recombination luminescence in Eu ²⁺ -activated alkali halide crystals - P.S.Ivakhnenko, I.A.Parfianovich & E.I.Shuraleva	844	780
Kinetics of pulse photostimulated luminescence of alkali-halide crystal phosphors in the millisecond and second ranges - V.G.Krongauz, P.N.Yarovoi & I.A.Parfianovich	848	784
Effects of forbidden-gap width on the luminescence yields of ZnS _x -CdS _{1-x} phosphors containing Tm ³⁺ and Ho ³⁺ - V.L.Levshin, N.V.Mitrofanova, L.A.Pakhomycheva, Yu.P.Timofeev, S.A.Fridman & V.V.Shchaenko	852	787
Multiphoton excitation of luminescence and photoconductivity in KCl:Eu single crystals by ruby- and neodymium-laser light - G.I.Aseev, M.L.Kats, V.K.Nikol'skii & V.A.El'stratrov	858	792
Ionization of luminescence centers and quasilocal electronic excitations in ionic crystals - Ch.B.Lushchik, Kh.F.Kaambre, Yu.L.Lukantsever, N.E.Lushchik, E.S.Tisler & I.V.Yaek	863	796
The high-temperature mechanism of F-center formation - D.I.Vaisburd, S.M.Minaev & N.L.Terent'ev	870	803
Effect of color centers on the spectrum of Cr ³⁺ in ruby - G.E. Arkhangel'skii, Z.L.Morgenshtern & V.B.Neustruev	875	807
Aspects of the physical chemistry of sulfide phosphors - A.M.Gurvich, A.M.Gurvich, M.A.Il'ina & R.V.Kotomina	879	812
Features of the absorption and luminescence of alkali- halide crystals containing mixed impurities - A.E.Glaubergerman, Lai Kim Tien, A.B.Gol'denberg & S.I.Golub	885	817
Quasiparticles in crystal phosphors of various classes - Ch.B. Lushchik	889	820
Luminescence of sodium atoms stabilized in solid argon at 4.2°K - A.A.Belyaeva, Yu.B.Predtechenskii & L.D.Shcherba	895	825
Optical absorption of CaF ₂ single crystals - E.K.Zavodovskaya, L.A.Lisitsyna & V.M.Lisitsyn	900	829
Mercury-free fluorescent lamps with photon multiplication - E.R.Il'mas, Ch.B.Lushchik, T.I.Savikhina & V.V.Fedorov	904	833
Results of work at the State Institute of Applied Chemistry on the improvement of halophosphate luminophors - O.N.Kazankin, M.P.Belov, L.S.Zimoglyad, R.A.Aleksandrova & T.P.Grigalyuk	908	836
The luminescence of quartz - A.N.Trukhin, A.R.Silin', L.M.Landa, I.K.Vitol, Yu.R.Zakis & V.E.Zirap	911	839
Some aspects of radical-recombination luminescence - V.V.Styrov, V.A.Sokolov, F.F.Vol'kenshtoin, A.I.Bazhin & Yu.A.Sivov	915	843
Radical-recombination luminescence in solids with wide forbidden gaps - A.I.Bazhin, V.A.Sokolov & V.V.Styrov	919	846
Kinetics of radical luminescence in crystal phosphors with a long afterglow on photoexcitation - A.N.Gorban', V.G.Kornich, L.P.Kornich & A.V.Bogatkov	922	849
Induced photoconductivity and recombination luminescence of diamonds - V.G.Krongauz, K.N.Pogadaev, E.S.Vilutis & V.S.Tatarinov	924	851

Available from Columbia Technical Translations

Table of Contents

Transaction of the Seventeenth Conference on Luminescence (Crystal Phosphors)
(Irkutsk, 26 August - 3 September, 1968)

	Page Orig. Trans.
On the theory of optical transitions in impurity centers between local and energy-band states - N.N.Kristofel' & G.S.Zavt	930 859
Luminescent materials with nonlinear electron-hole processes for selective dosimetry - F.A.Savikhin & I.V.Yaek	934 863
EPR and defects in ZnS:I single crystals - G.E.Arkhangel'skii & A.V.Lavrov	938 867
Effect of Fe, Ni, and Co on stimulated absorption in ZnS:Cl and ZnS:Cu luminophors - K.Yu.Piir & K.-S.K.Rebane	941 870
Ultraviolet emission from sublimed films of unactivated zinc sulfide - V.L.Levshin, E.Ya.Arapova, Yu.V.Voronov, V.B.Gutan & Yu.P.Timofeev	944 873
Effect of preliminary processing of zinc sulfide on its self-activation capability - A.A.Bundel', A.V.Vishnyakov, Z.I.Guretskaya, V.N.Zubkovskaya, L.A.Smorodina & V.T.Shiryaev	948 877
Thermoluminescence of electron-excited unactivated zinc sulfide - Yu.V.Voronov & Yu.P.Timofeev	951 879
Optical properties of cadmium sulfide under two-stage excitation - B.M.Gugel', T.V.Oranovskaya, N.A.Kharitonova & N.N.Veklich	955 883
Infrared effects in cadmium sulfide crystals showing edge emission - A.K.Aidla & Ya.Ya.Kirs	958 885
Luminescence and electric conductivity of zinc selenide - L.Ya.Markovskii, I.A.Mironov & Yu.S.Ryzhkin	961 887
Stimulated emission and depth of trapping centers in CaS and SrS phosphors - V.L.Levshin, V.V.Mikhailin & V.V.Nizovtsev	962 890
Some fabrication problems and properties of aerosol-deposited ZnS.CdS-film fluorescent screens - L.K.Volkova, I.N.Orlov, V.V.Prihod'ko & N.P.Soshchin	967 893
Effects of various factors on the change in the luminescence of sulfide phosphors on annealing - A.M.Gurvich & S.P.Pivneva	971 896
Fundamental absorption and excitation in a series of IIA-VIB compounds - V.L.Levshin, V.V.Mikhailin & L.K.Saulevich	974 900
A new method of studying the energy spectrum of electronic states in crystal phosphors - A.A.Gailitis, Y.L.Yansons & I.K.Vitol	977 902
Effect of donor-acceptor impurities on the cathodoluminescence of ZnS single crystals - A.I.Blazhevich, A.V.Lavrov & E.I.Panasyuk	980 906
Effects of modifiers on the surface properties of powdered ZnS cathode-ray luminophors - N.P.Soshchin, I.N.Orlov & A.M.Amiryan	984 909
Bound excimers in ionic crystals activated by mercury-like ions - E.A.Vasil'chenko & N.E.Lushchik	988 913
Influence of hydrostatic pressure on the absorption and luminescence of emission centers in alkali halide crystals - A.I.Laisaar & Ya.Ya.Kirs	993 917

(Contd.)

Available From Columbia Technical Translations

Spectral characteristics of NaCl:Tl phosphors - L.I.Tarasova, N.I.Ivanova & A.A.Solov'eva	996	920
Spectroscopy of molecular centers in crystal phosphors - Yu.R.Zakis	999	922
Luminescence of various types of europium centers in RbCl, NaBr, and NaI crystals - B.S.Gorobets & L.M.Shamovskii	1001	925
Luminescence centers and energy transfer in terbium oxide activated sodium halide crystals - A.V.Dolgoplova & B.S.Skorobogatov	1005	928
Effects of traces of Sr on the accumulation of electronic color centers in KCl cleavage whiskers - S.V.Gol'denberg, A.I.Bychkova & I.Ya.Melik-Gaikazyan	1008	932
Absorption and luminescence spectra of Ce-activated NaCl and KCl crystals - M.L.Kats & N.P.Zvezdova	1011	935
On induced activator centers in KI:Eu - P.S.Ivakhnenko, I.A.Parfianovich & E.I.Shuraleva	1014	937
Low-temperature electron trapping centers in alkali halide crystals based on KCl - V.A.Shibaev, I.A.Vasil'ev, B.T.Plachenov & M.I.Mochenov	1017	940
Recombination luminescence of KI:Cu phosphors - L.P.Smol'skaya	1020	943
Kinetics of radioluminescence buildup - V.V.Pologrudov, E.F.Martynovich & I.A.Parfianovich	1023	945
Luminescence of Eu- and Yb-activated additively colored KI crystals - G.D.Varenko, V.P.Avdonin & B.T.Plachenov	1026	948
Trapping centers in CdI ₂ crystals - A.V.Lyskovich, S.K.Zherebetskii, G.M.Pentsak & Z.P.Chornii	1029	951
Luminescence of silver-sulfide doped silver halides - N.A.Orlovskaya, V.M.Belous & S.I.Golub	1031	953
Luminescence of KBr:Eu Single Crystals - V.P.Glinin, V.P.Avdonin & B.T.Plachenov	1034	956
On the role of activator ions in thermostimulated luminescence and thermal bleaching processes in NaCl:Cu phosphors - T.A.Baskaeva, V.G.Krongauz, I.A.Parfianovich & E.I.Shuraleva	1037	959
Luminescence and trapping centers in LiF:Mn crystals - G.K.Vale, V.B.Laizan, D.Yu.Lusis & V.A.Stankevich	1040	962
Colloid absorption bands in Ga- and In-activated CsBr and CsI crystals - V.I.Shtan'ko, G.A.Mikhal'chenko & V.A.Shibaev	1045	966
Effects of oxygen on the luminescence spectra of trivalent rare-earth ions in fluorite crystals - G.B.Bokii, L.S.Gaigerova, O.F.Dudnik & E.N.Murav'ev	1048	969
Mechanism of recombination luminescence in CsCl, CsBr and CsI crystals - A.A.Persinen, I.A.Vasil'ev, V.A.Shibaev, M.I.Mochenov & B.T.Plachenov	1050	971
Effects of synthesis conditions on the cathodoluminescence and photoluminescence of YVO ₄ :Eu and Y ₂ O ₃ :Eu - M.M.Shapochnik	1053	974
Rare-earth activated luminophors based on yttrium and gadolinium silicates - I.A.Bondar', A.A.Kolpakova, L.Ya.Markovskii, A.N.Sokolov, L.E.Tarasova & N.A.Toropov	1057	977
Luminescence of rare earth ions in Na ₂ ZrSiO ₅ crystals - F.F.Gavrilov, B.V.Shul'gin, A.L.Shalyapin, V.G.Chukhlantsev & N.I.Kordyukov	1062	981
On purification of reagents for synthesis of crystal phosphors by an extraction technique - M.-L.Yu.Allsalu & T.A.Lepiku	1065	984
Synthesis conditions and cathodoluminescence characteristics of Y ₂ O ₃ -Eu ₂ O ₃ luminophors - A.M.Amiryan, R.M.Kotlyarov, V.N.Nikonov, T.M.Morina, I.N.Orlov & N.P.Soshchin	1067	985

(Contd)

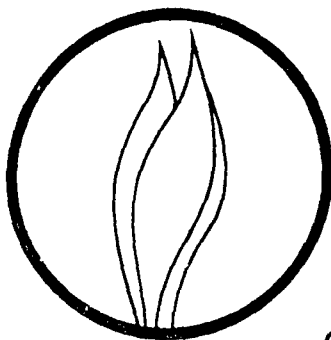
Available From Columbia Technical Translations

IZVESTIYA AKADEMIY NAUK SSSR SERIYA FIZICHESKAYA
Vol 33, No 6, 1969

Yttrium silicates - new bases for cathodoluminophors - A.V.Morozova & T.Ya.Rumyantseva	1072	990
On color centers in calcium halophosphates - V.A.Goryunov, A.E.Skreblyukov & T.I.Morozova	1074	993
Depletion of thermostimulated emission peaks and interaction of centers in sulfate phosphors - G.V.Sokolov & B.M.Nosenko	1078	995
Resolving power and errors in trap spectroscopy by the fractional glow technique - I.A.Tale & A.A.Gailitis	1081	997
Investigation of the ground state of luminescence transitions in concentrated ruby - Yu.L.Shelekhin, M.P.Votinov & B.P.Berkovskii	1085	1001

Available From Columbia Technical Translations

Translated in 1970 by
Columbia Technical Translations
5 Vermont Ave., White Plains, N.Y. 10606



Soviet Physics Journal

The Faraday Press
cover-to-cover translation of *Izvestiya VUZ. Fizika*

Contents Volume 9, Number 5 · September-October 1966

Editorial Board

Izvestiya VUZ. Fizika

a publication of the
Higher Education Institutes
USSR

K. V. Savitskii,
Editor-in-Chief
V. E. Zuev,
Associate Editor

M. A. Bol'shanina
V. S. Vavilov
A. A. Vorob'ev
P. V. Golubkov
E. F. Gross
B. S. Dzheleпов
V. A. Zhdanov
V. I. Iveronova
V. N. Kessenikh
I. A. Parfianovich
V. A. Presnov
N. A. Prilezhaeva
A. L. Ryachev
A. B. Sapozhnikov
A. A. Sokolov
K. V. Shalimova

Faraday Advisory Editors

R. C. Glass
The City University, London
B. R. Pamplin
Bath University of Technology
J. P. Suchet
Centre National de la Recherche
Scientifique, Paris
C. S. Robinson
University of Illinois

	Russian page	English page
Ferrite Resonance Isolators in Coaxial, Strip, and Rectangular Waveguides With a Dielectric. A. S. Khlystov and N. S. Nesmelov.	7	1
Temperature Characteristics of Magnetic Crystallographic Anisotropy Constants in Single Crystals of Lithium and Lithium-Cobalt Ferrites. M. A. Stel'mashenko and V. N. Seleznev	13	7
Attenuation of a Light Signal in a Scattering Medium. IV. Interference Effects in Light Scattering. M. V. Kabanov	19	11
Radiationless Transitions in the System $C^{13} \rightarrow Be^9 + \alpha$. P. A. Cherdantsev and I. A. Gamalya	24	14
Theory of the Photo-emf in Semiconductors With a Sawtooth Surface. N. F. Kovtonyuk and V. F. Fedonin	28	16
High Temperature Relaxation in Metals and Alloys. L. N. Aleksandrov	33	19
On the Nature of the Generalized WKB Method. N. I. Zhirnov	41	25
Some Problems in the Operation of a Streamer Chamber. G. A. Vorob'ev and Yu. P. Usov	48	29
Temperature Dependence of Phase Shift in Ferrite Phase Shifters. A. S. Khlystov and K. A. Sablina	51	31
The Effect of the Excitation Density on the Radioluminescence of Single Crystals of ZnS-Ag II. V. S. Bezel and F. F. Gavrilov.	56	35
The Design of Reciprocal Ferrite Phase Shifters. N. S. Pechurkin, L. V. Bychkova, and A. N. El'sukov.	63	39
Importance of Collisions of the Second Kind in the Emission of N_2 and CO Molecular Bands From $N_2 + Ar$ and $CO + Ar$ Mixtures in Glow Discharges. L. A. Chernenko	67	43
On the Equation Specifying the Energy Spectrum of an Asymmetric Rigid-Rotator Molecule. Yu. S. Makushkin.	71	46

Available from The Faraday Press

(Continued)

Single Issue: \$35

Annual Subscription: \$125

© 1969 by The Faraday Press, Inc.

All rights reserved. This publication or parts thereof may not be reproduced in any form without permission of the publisher.

The Faraday Press, Inc.

84 FIFTH AVENUE, NEW YORK, N. Y. 10011

IZVESTIYA VUZ FIZIKA
Vol 9, No 5, 1966

	Russian page	English page
Deformation Hardening and Temperature Dependence of Mechanical Properties in Ternary Ordered Alloys Based on Ni_3Fe . I. M. A. Bol'shanina, N. A. Koneva, A. D. Korotaev, and A. Khudoman	75	49
Theorem on the Relationship Between the Field of a Vertical Dipole and That of a Horizontal Dipole. O. K. Radugin	86	56
Electrical Properties of Cu_2S . G. P. Sorokin and A. P. Paradenko	91	59
Magnetization of Rails by a Moving Field Source. N. V. Miroshin	96	62
The Elastic Anisotropy of Permalloy Sheet. I. Rolling Texture. A. A. Bryukhanov, V. V. Berezyuk, and A. E. Bryukhanov	102	67
Dielectric Breakdown Due to Ionization of Internal Gas Occlusions. N. S. Il'chenko, A. V. Kovalev, and G. I. Gavriluk	109	71
Maximum Uniform Deformation in Tension. L. G. Kharitonov	115	76
Surface Conductivity of Cuprous-Oxide Rectifiers. M. M. Kalabin and P. V. Sharavskii	119	79
Structural Transformations in the Alloy EI702. V. V. Karavaeva and V. F. Sukhovarov	126	84
Investigation into the Processes of Thermal and Photothermal Destruction of F-Color Centers in Alkali-Halide Crystal Phosphors. E. S. Dudarev, F. N. Zaitov, and Yu. L. Lukantsever	135	90
Transients in Semiconductor Diodes at High Injection Levels. V. I. Gaman and S. A. Zaidman	142	95
Anharmonic Effects in Crystals With Vacancies. A. Z. Varisov, A. I. Rezanov, and R. M. Sabitov	147	98
Influence of Preliminary Treatment of Polycrystalline Barium Titanate on the Shape of Its Hysteresis Loop. Z. A. Shamro	151	101
Effect of Negative Masses in the Statistical Theory of Multiple Creation. M. Chaichian	157	105
Effect of the State of Long-Range Order and Grain Size on the Work Hardening of the Alloy Ni_3Mn . E. V. Kozlov, N. A. Aleksandrov, and L. E. Popov	162	108
Brief Communications		
Irradiation Coloring of NaCl Crystals Activated by Nd^{3+} . I. Ya. Melik-Gaikazyan and L. A. Chervyakova	172	116
A Thermodynamic Theory of the Thermomolecular Pressure Difference in Wide Capillaries. P. E. Suetin	173	117
Propagation of a Strong Electromagnetic Field in an Absorbing Gaseous Medium. I. I. Ippolitov	175	118

Available from The Faraday Press

COLLOID JOURNAL

of the USSR

A translation of *Kolloidnyi Zhurnal*

Volume 31, Number 6

November-December, 1969

CONTENTS

	Engl./Russ.
Structure of Molecules of Polymeric Surface-Active Materials at the Phase Boundary in Stable Emulsions - A. A. Abramzon and E. V. Gromov.	635 795
Gels of Silicon-Organic Compounds Synthesis and Properties of Xerogels of Ethylpolysiloxane - G. B. Budkevich, I. V. Slinyakova, and I. E. Neimark	639 800
Adsorption of Alkyl Esters of Polyethylene Glycol from Aqueous Solutions on Arsenic Sulfide Powder - Yu. M. Glazman and Zh. G. Blashchuk.	646 809
Investigation of the Syneresis of a Gel Made of Butadiene-Nitrile Latex - Yu. V. Grubman, D. M. Sandomirskii, V. V. Chernaya, M. I. Shepelev, and S. A. Shteinberg.	650 814
Vulcanization of Elastomers by Salts of Unsaturated Acids. Effect of Metal Oxides on Vulcanization Network Structure and Strength of Rubber Containing Salts of Methacrylic Acid - A. A. Dontsov, V. E. Mikhlin, L. I. Savel'eva, and B. A. Dogadkin	654 818
Film-Effect Theory of Low-Frequency-Dispersion Dielectric Permeability of a Moistened Coarse-Dispersed System - S. S. Dukhin, T. S. Sorokina, and T. L. Chelidze	658 823
Coagulation of Arsenious Sulfide Hydrosols of Various Concentrations. Theoretical Examination of Relationships Governing Coagulation by Electrolyte Mixtures - E. F. Zhel'vis, Yu. M. Glazman, V. M. Barbol, and B. V. Barbol.	665 831
Study on the Structuration Process in Solutions of cis-1,4-Polybutadiene - P. I. Zubov and V. M. Artemov.	671 837
Concentration Dependence for the Diffusion Coefficient in a Dilute Suspension of Rigid, Spherical Particles - A. M. Kapustin and T. N. Khazanovich.	675 842
Electronmicroscopic Study of the Formation of a New Phase during Interaction of Polyvinyl Alcohol with Formaldehyde in an Aqueous Solution - G. N. Kormanovskaya, E. I. Evko, V. V. Churakov, V. M. Luk'yanovich, and I. N. Vlodavets	681 848
Mutual Solubility and Spontaneous Emulsification of the Components in the Polymer- Polymer-Solvent System - V. N. Kuleznev, L. S. Krokhina, and B. A. Dogadkin . . .	685 853
Molecular Distribution Functions and Disjoining Pressure of Thin Films. Multicomponent Liquid Film - F. M. Kuni, A. I. Rusanov, and E. N. Brodskaya . . .	691 860
Wetting of Polymers by Electrolyte Solutions - A. I. Levin and V. P. Pil'nikov.	700 870
Effect of Some Electrolytes on Aggregative Stability of Suspensions of Titanium Dioxide in Water - N. M. Livanova, A. I. Shutova, and E. M. Aleksandrova	704 875
Investigation of Diffusion of Direct Dyestuffs into an Adsorbent Substrate at Temperatures Exceeding 100° - B. N. Mel'nikov and M. N. Kirillova	707 879 (Contd)

Available From Consultants Bureau

KOLLOIDNYI ZHURNAL
Vol 31, No 6, Nov-Dec 1969

	Engl./Russ.
Aging of Calcium Sulfate Precipitates – O. V. Neiman and M. I. Belikova	711 884
Thermal (Brownian) Coagulation of an Emulsion Perturbed by Gravitation and Electrical Fields – G. M. Panchenkov and L. K. Tsabek.	714 887
Diffusion of Nonionic Emulsifiers in Water and Xylene – G. A. Simakova, A. E. Chalykh, R. M. Val' in, S. A. Nikitina, and A. B. Taubman	720 893
Dispersed Crystalline Structure Formation and Chemical Interaction in Suspensions of Tricalcium Aluminate in the Presence of Sodium Chloride – N. P. Stukalova, E. P. Andreeva, and P. A. Rebinder	723 897
Photometric Method of Investigating Vibrodensified Disperse Materials – S. I. Furmanov, G. M. Khutortsov, and N. V. Mikhailov	728 904
Interelectrode Circulation and Interelectrode Compression of the Disperse Phase in Nonaqueous Disperse Systems – V. N. Shilov and Yu. F. Deinega.	731 908
Experimental Investigation of Cohesive Forces in Individual Microscopic Contacts between Crystals with Compression and Sintering – E. D. Shchukin, R. K. Yusupov, E. A. Amelina, and P. A. Rebinder.	736 913
 LETTERS TO THE EDITOR	
Measurement of Small Electro-Osmotic Pressures – V. S. Bondarenko and V. F. Androsoy	741 919
Some Physicochemical Properties of Magnesium Salts of Alkyl Sulfates – I. K. Getmanskii and L. I. Bavika	743 920
Preparation and Porous Structure of Magnesium Fluoride Xerogel – R. Yu. Sheinfain, O. P. Stas', and I. E. Nelmark.	745 922
Concentration Dependence of the Dimensions of Polymer Balls in a Theta-Solvent – V. E. Éskin and I. A. Baranovskaya.	747 924
Dependence of Strength of Contacts in Mineral – Polymer Structures of Dimensions of Particles of the Filler – E. D. Yakhnin and É. I. Averbakh	749 925
 CHRONICLES	
Rostislav Érnestovich Neiman, Professor, Doctor of Chemical Sciences (on His Sixtieth Birthday).	751 927
Valentin Aleksandrovich Pchelin, Professor, Doctor of Chemical Sciences (on His Sixtieth Birthday).	753 929
Valentin Alekseevich Kargin (1907-1969).	755 931
 INDEX	
Author Index, Volume 31, Numbers 1-6, 1969.	759
Tables of Contents, Volume 31, Numbers 1-6, 1969.	763

The Russian press date (podpisano k pochati) of this issue was 11/19/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

KRISTALLOGRAFIYA
EDITORIAL BOARD
N. V. Belov
(Editor)
Institute of Crystallography
Academy of Sciences of the USSR,
Moscow
G. B. Bokil
A. A. Chernov
V. A. Frank-Kamenetskii
V. L. Indenbom
A. I. Kitaigorodskii
V. A. Koptak
Z. G. Pinsker
A. V. Shubnikov
L. A. Shvalov
(Secretary)
B. E. Vainshtein
G. B. Zhdanov
(Associate Editor)

Soviet Physics CRYSTALLOGRAPHY

A Translation of "Kristallografiya"

(Russian Original Vol. 14, No. 6, pp. 965-1144, November-December, 1969)

Vol. 14, No. 6, pp. 839-1024

May-June, 1970

CONTENTS

		PAGE	RUSS. PAGE
Three-Beam Borrmann Effect in Germanium. <u>A. A. Katsnel'son,</u> <u>V. I. Kisin, and N. A. Polyakova</u>	(E)	839	965
On the Normal Vibrations of a Crystal Lattice with a Linear Defect. I. <u>Ya. A. Iosilevskii</u>	(T)	842	969
Errors in Powder-Pattern Determination of Cell Parameters in Low- Symmetry Crystals. <u>S. K. Filatov and V. A. Frank-Kamenetskii</u>	(E)	849	978
The Crystal Structure of Ytterbium Oxyorthosilicate Yb_2SiO_5 . <u>Yu. I. Smolin</u>	(E)	854	985
Crystal Structure of CeNiSi_2 and Kindred Compounds. <u>O. P. Bodak</u> and <u>E. I. Gladyshevskii</u>	(E)	859	990
Crystal Structure of Chloro-Bis-Dimethyl-Ammonium Glyoximate of Cobalt (III). <u>T. I. Malinovskii, Yu. A. Simonov, and B. M. Shchedrin</u> Investigation of the Infrared Absorption Spectra of a Triglycinsulfate Crystal in Polarized Light during the Ferroelectric Phase Transition. <u>G. S. Danil'chuk, M. A. Itskovskii, and I. S. Kremenchugskii</u>	(E)	863	995
Polarization of Electromagnetic Waves in Optically Active Crystals. <u>B. V. Bokut'</u>	(E)	866	998
The Electrooptic Effect in Optically Heterogeneous Crystals. <u>V. A. Shamburov</u>	(T)	870	1002
Influence of Temperature on the Luminescence and Photoelectret State of Silver Halides. <u>V. K. Marinchik, V. M. Belous,</u> and <u>V. I. Bugrienko</u>	(T)	875	1009
Single Crystals of Cadmium Metatitanate and Solid Solutions Based on It. <u>M. L. Sholokhov, O. P. Kramarov, B. F. Proskuryakov,</u> and <u>E. K. Zvorykina</u>	(E)	880	1016
The Difference in the Mechanisms of the Movement of the Domain Walls in Crystals of Rochelle Salt Close to the Upper and Lower Curie Points. <u>A. V. Shil'nikov, E. S. Popov, and S. L. Rapoport</u>	(E)	884	1021
Effect of Illumination on Polarization Reversal in the Ferroelectric Semiconductor SbSI Using the Barkhausen Effect. <u>A. A. Bogomolov,</u> <u>V. V. Ivanov, and V. M. Rudyak</u>	(T/E)	890	1028
	(E)	894	1033

(Contd)

Available From The American Institute of Physics
Vol 14, No 6, May-June 1970

	PAGE	RUSS. PAGE
Microhardness Anisotropy of Semiconductor Single Crystals with the Würtzite, Sphalerite, and Diamond Structure. <u>L. G. Tsinkerling,</u> <u>E. S. Berkovich, L. A. Sysoev, and M. P. Shaskol'skaya</u>	(E)	897 1037
The Defect Structure of γ - and X-Irradiated Alkali Halide Crystals. <u>E. V. Kolontsova and V. M. Linnik</u>	(E)	903 1044
The Amorphization of Silicon Crystals on Irradiation with Fast Ions. <u>V. M. Gusev, Yu. V. Martynenko, and K. V. Starinin</u>	(E)	908 1050
Electrical Properties of the Surfaces of Ionic Crystals. <u>G. I. Distler</u> <u>and E. I. Tokmakova</u>	(E)	913 1055
Linear Peak Triplets in Vector Systems Corresponding to Centrosymmetric and Acentric Fundamental Systems. <u>É. A. Kuz'min, V. V. Ilyukhin, and N. V. Belov</u>	(T)	916 1059
 BRIEF COMMUNICATIONS		
Crystal Structure of Zinc Chkalovite $\text{Na}_2\text{Zn}[\text{Si}_2\text{O}_6]$. <u>E. L. Belokoneva,</u> <u>Yu. K. Egorov-Tismenko, M. A. Simonov, and N. V. Belov</u>	(E)	918 1060
Crystal Structure of a Synthetic Iron Beryllsilicate: $\text{Fe}_3\text{BeSi}_3\text{O}_{10}$ (F, OH) ₂ . <u>V. V. Bakakin and L. P. Solov'eva</u>	(E)	920 1063
Tazheranite - A Mineral with CaF_2 -Type Structure. <u>A. A. Kashaev</u> <u>and Z. F. Ushchapovskaya</u>	(E)	922 1064
X-Ray Diffraction Study of the Crystalline Hydrates of the Perrhenates of the Alkaline Earth Metals. <u>M. B. Varfolomeev, I. P. Chupakhin,</u> <u>and V. E. Plyushchev</u>	(E)	924 1065
Synthesis and Structural Studies of Some Perovskites Which Contain Bismuth. <u>E. T. Shuvaeva and E. G. Fesenko</u>	(E)	926 1066
Structural Transformations of Fluorides above and below the Néel Temperature. <u>M. A. Vinnik and L. N. Selezneva</u>	(E)	928 1068
Investigation of the CdTiO_3 - NaTaO_3 and CdTiO_3 - BiFeO_3 Systems. <u>V. M. Lebedev, Yu. N. Venetsev, and G. S. Zhdanov</u>	(E)	931 1071
Regularities of the Pulsed Polarization Reversal of Triglycinsulfate Crystals. <u>E. V. Peshikov</u>	(T)	934 1074
Study of the Thermal Expansion of Molecular Crystals. 3. Determination of the Unit Cell Parameters and Anisotropy in the Thermal Expansion of Biphenyl at Low Temperatures. <u>V. M. Kozhin and K. V. Mirskoya</u>	(T/E)	938 1077
Slip Lines in CdS after Plastic Deformation. <u>A. A. Blistanov,</u> <u>O. M. Kugaenko, V. V. Geras'kin, and M. P. Shaskol'skaya</u>	(E)	941 1080
X-Ray Topography of the Ferromagnetic Domains of Silicon Iron. <u>V. P. Makarov and B. V. Molotilov</u>	(E)	945 1084
Graphical Construction of Diffuse-Scattering Regions. <u>G. V. Kleshchev,</u> <u>D. V. Shumilov, A. I. Sheinkman, and V. N. Panov</u>	(E)	948 1088
Effect of Impurity Evaporation from a Melt on the Transient Period of Impurity Repulsion. <u>V. V. Voronkov, M. G. Mil'vidskii,</u> <u>and O. V. Pelevin</u>	(T)	951 1091
Growth Rate of Rochelle Salt Crystals As a Function of Solution Supersaturation. <u>I. M. Levina and A. V. Belyustin</u>	(E)	954 1093
Growth of Vanadium Pentoxide Single Crystals and Their Dislocation Structure. <u>A. A. Abdullaev, L. M. Belyaev, I. V. Binarov,</u> <u>G. F. Dobrzhanskii, and R. G. Yankelevich</u>	(E)	957 1095
Morphology of ZnSe Crystals Grown by Means of a Chemical Transport Reaction. <u>A. A. Simanovskii</u>	(E)	960 1098 (Contd)

Available From The American Institute of Physics
Vol 14, No 6, May-June 1970

KRISTALLOGRAFIYA
Vol 14, No 6, Nov-Dec 1969

			RUSS.
		PAGE	PAGE
Mass Transfer in a Hollow-Cathode Discharge. <u>K. A. Oganezov</u> , <u>A. Kh. Chamagua</u> , and <u>B. Ya. Chikhladze</u>	(E)	963	1100
Oriented Crystallization of Gold on a Sodium Chloride Crystal Surface through an Amorphous Carbon Film. <u>Yu. M. Gerasimov</u> and <u>G. I. Distler</u>	(T)	964	1101
On the Nature of "Growth Bands" in Epitaxial Layers of GaP_xAs_{1-x} . <u>F. A. Gimel'farb</u> , <u>E. S. Kopeliovich</u> , <u>V. N. Maslov</u> , <u>R. L. Petrusevich</u> , and <u>V. I. Fistul'</u>	(E)	967	1104
The Reason for Recrystallization in Solutions. <u>I. G. Bazhal</u>	(E)	970	1106
Effect of an Electrostatic Field on the Kinetics of Selenium Crystallization from the Gas Phase. <u>G. B. Abdullaev</u> , <u>A. I. Odobesku</u> and <u>A. Yu. Kon</u>	(E)	972	1108
Production of Thin Films of the α -Modification of Mercury Sulfide. <u>B. F. Bilen'kii</u> , <u>M. V. Miliyanchuk</u> , <u>M. V. Pashkovskii</u> , and <u>I. V. Savitskii</u>	(E)	975	1111
Electron Diffraction and Electron Microscope Studies of Thin $BaTiO_3$ Condensates. <u>L. G. Rigerman</u> , <u>Yu. Ya. Tomashpol'skii</u> , and <u>Yu. N. Venevtsev</u>	(E)	977	1112
Growth of Aluminum Garnet Single Crystals Containing a Neodymium Impurity. <u>V. Z. Bychkov</u> , <u>S. A. Fedulov</u> , <u>A. S. Vlasov</u> , <u>B. S. Skidan</u> , and <u>V. K. Balashov</u>	(E)	981	1115
Hydrothermal Synthesis in Certain Chloride Systems Containing Praseodymium and Tungsten Oxides. <u>L. Yu. Kharchenko</u> and <u>P. V. Klevtsov</u>	(E)	983	1117
Influence of Cation Impurities on the Growth of Filamentary NaCl Crystals from the Solution. <u>E. Hartmann</u>	(E/T)	986	1120
Possible Hydrothermal Synthesis of In_2O_3 Crystals. <u>B. N. Litvin</u> and <u>L. I. Ivanova</u>	(E)	988	1122
Sof'ya Vladimirovna Grum-Grzhimailo (1908-1969)		989	1123
AUTHOR INDEX		993	
SUBJECT INDEX		1013	

Available From The American Institute of Physics
Vol 14, No 6, May-June 1970

TABLE OF CONTENTS

<i>Ljubica Stromar:</i>	
Bird Banding in 1965. 1. Results of Bird Banding Carried out by the Ornithological Department of the Biology Institute, Zagreb University, 17th Report	5
<i>Renata Rucner:</i>	
On the Yugoslav Endemic Subspecies <i>Apus pallidus illyricus</i> (Tschusi)	27
<i>Ljubica Stromar:</i>	
Incidence of the Waxwing, <i>Bombycilla garrulus</i> , in Yugoslavia in Winter 1965/66	41
<i>József Mikuska:</i>	
The Avifauna of Ludaško Jezero Lake	53
<i>Antun Cvitanić and Petar Novak:</i>	
A Contribution to the Study of Avian Nutrition in Middle Dalmatia	69
<i>Mirko Šetina:</i>	
Contribution to the Knowledge of the Avifauna of the Slavonski Brod Environs	85
<i>Notes:</i>	
Lapland Bunting, <i>Calcarius lapponicus</i> , in the Zagreb Environs. — Incidence of the Waxwing, <i>Bombycilla garrulus</i> , on the Territory of Croatia during 1966/67 and 1967/68. — Blacktailed Godwit, <i>Limosa limosa</i> , Nesting in Vojvodina. — Interesting Ornithological Observations in Zrenjanin and its Environs. — Ingenious Ravens, <i>Corvus corax</i> . — Some Ornithological Data from Sanski Most. — A Late Red-footed Falcon, <i>Falco vespertinus</i> , Clutch. — Ornithological Data from Plavnik and Krk Islands. — Vjekoslav Armano (1860—1942)	97
<i>Index alphabeticus avium</i>	103

Available From CFSTI TT 69-51014

LIJECNICKI VJESNIK
Vol 91, No 3, 1969

	Page
<i>B. Bezjak, Z. Zgaga, V. Kovačić, S. Trenc-Ožbolt and S. Iveša-Petričević:</i>	
An Outbreak of Clostridium Perfringens Food-Poisoning	1
<i>V. Nutrizio and J. Hančević:</i>	
Photometric Method of investigation in the Atrophic Changes of the Bones	9
<i>M. Prejac, V. Rajčić, L. Vasilj, B. Straus and E. Košuta:</i>	
Acid Phosphatase Activity in Patients with Gaucher's Disease . . .	15
<i>K. Herfort, J. Rösch and F. Škrha:</i>	
The Value of Some Examinations in Diseases of the Exocrine Part of the Pancreas	22
<i>I. Čustović, Z. Popović and N. Hadži-Musić:</i>	
Transient Diabetes Mellitus in Newborn Infants	35
<i>N. Mihajlović, I. Belančić and M. Parać:</i>	
Infusion Urography — Indications, Diagnostic Value and Technique	40
<i>I. Vodopija:</i>	
Cl. welchii as a Causative Agent of Food-Poisoning	45
<i>R. Medved:</i>	
Invalids as Olympic Prize Winners and Top Competitors	49

Available From CFSTI TT 69-51002/3

LIJECNICKI VJESNIK
Vol 91, No 4, 1969

TABLE OF CONTENTS

	Page
<i>B. Borčić and B. Flajsig:</i>	
On the Epidemiology of Tularemia in the Light of the Tularin Test	1
<i>I. Bakran jr., S. Knežević and P. Nola:</i>	
Incidence and Some Characteristics of Cancer of the Colon	11
<i>Z. Brala, D. Popović, H. Fabijanić and Z. Škrabalo:</i>	
Our Experiences in Treating Diabetic Gangrene	19
<i>A. Sabolić:</i>	
X-Ray Signs of Classical Pulmonary Infarction	26
<i>O. Jelić:</i>	
Agranulocytosis Couused by Anilinopyrine	36
<i>R. Uchytíl and Đ. Bubanj:</i>	
Primary Hemochromatosis in Women of the Generative Age	40
<i>T. Beritić:</i>	
Pyrazolon Agranulocytosis abroad and in Yugoslavia	47
<i>A. Markičević:</i>	
Health, Work and Productivity	52
<i>J. Honti:</i>	
Richard Bright's Travels in Croatia	57

Available From CFSTI TT 69-51002/4

LIJECNICKI VJESNIK
Vol 91, No 5, 1969

	Page
<i>V. Petrokov:</i>	
New Principles of Treating Fractured Bones	1
<i>Lj. Kraljević, J. Sokolić, Z. Ditrich, A. Jakobušić and J. Blažić:</i>	
Interventricular Septal Defect in Hypothermia and Cardioplegia — Experimental Results on Dogs	11
<i>Z. Dragaš:</i>	
Microbiological Diagnosis of <i>E. coli</i> O 124:B 17 (K 72) and Its Significance in the Etiology of Diarrheal Disease	18
<i>Z. Periš:</i>	
Multiple Malignoma in One Patient	24
<i>A. Karanušić and D. Kostić:</i>	
Hydatid Disease of the Biliary Ducts	29
<i>G. Tudorić and T. Mikloušić:</i>	
Two Case Reports of Memorrhagic Fever	32
<i>Z. Njemirovskij and D. Blažić:</i>	
Application of Local Anesthesia in Therapeutic Dentistry (Experi- ences with Baycain)	43
<i>P. Šarinić:</i>	
Some Data on the Position of Urology in 25 Countries in the World	49
<i>O. Krivec:</i>	
Organization of Urology in Croatia	56
<i>M. Prejac:</i>	
Calcitonin	67

Available From CFSTI TT 69-51002/5

NUKLEONIKA
Vol 13, No 9, 1968

CONTENTS

PHYSICS

- B. Bończak, J. Jateczak, R. Firkowski — Detection of Extensive Air Showers of Cosmic Radiation with a Neon Hodoscope 1
- K. Kiszyńska, M. Kopcewicz, S. Ligenza, J. Piekoszewski — Mössbauer's Effect in $\text{Fe}(\text{C}_6\text{H}_{11}\text{O}_7)_2 \cdot 2\text{H}_2\text{O}$ 16
- A. Turos, Z. Wilhelmi — Application of the Coulomb Backscattering of Heavy-Charged Particles. I. Measurements of Thickness of Thin Foils and Surface Layers 22

LETTERS TO THE EDITOR

- T. Kozłowski — A Pulse Shape Discriminator 47

CHEMISTRY

- K. Zelenay, T. Radoszewski — Investigation on Adsorption of the Activity from Solutions of Phosphorus-32 on the Walls of Penicillin Vials 51

LETTERS TO THE EDITOR

- M. Zieliński — Certain Remarks on Basic Pyrolysis of Sodium Acetate and the Possibilities of Application of this Reaction in Measurement of the Activity of Tritium Water . . . 58

ENGINEERING AND EQUIPMENT

- J. Peńsko, S. Glowacki, K. Mamont — Scintillation Gamma Background Monitor for Field Measurements 60

LETTERS TO THE EDITOR

- W. Dzik, W. Fiszer, W. Kempański — Application of the Radioactive Tracer Method in Investigation of the Effectiveness of Air Mixing in Ventilated Room 67

BIOLOGY

- M. Szulc — Radioactive Contamination of Milk in Poland over the Period of 1961-1967 in Relation to the Experiments with Nuclear Weapon Conducted in 1961 and 1962 . . . 71

Available from CFSTI TT 68-50011/9

NUKLEONIKA
Vol 13, No 10, 1968

CONTENTS

PHYSICS

- M. Kielkiewicz — Application of the Vo'erra Functional Series to the Space-Independent Kinetics of Homogeneous Reactors 1
J. Jagielak — Spectral Study on Phosphorus-32 Beta Particle Bremsstrahlung 11

CHEMISTRY

- M. Zieliński — Carbon-14 Isotope Effect in the Pyrolysis of Single-Labeled Dimethyl Ether 23

LETTERS TO THE EDITOR

- H. Pluciennik, A. Kunciewicz, T. Prussak-Więckowska — Determination of Microelements in Bacterial Mass by the Reversed Isotopic Dilution Method 29

ENGINEERING AND EQUIPMENT

- T. Bes — Heat Transfer in a Laminar Stream of a Nuclear-Reactor Liquid Coolant . . 33
R. Bayer, T. Koba — A Nonoverloading Linear Pulse Amplifier 53

Available from CFSTI TT 68-50011/10

CONTENTS

PHYSICS

- H. Hofmohl, W. Stefański — Muon-Absorption Measurement of Ground Layer Depth . . . 1
- J. Szpunar, A. Oleś, B. Buras, I. Sosnowska, E. Pietras — Neutron Diffraction Studies on the Texture of Coarse-Grained Metal Sheets 10
- J. Boużyk, S. Latek, W. Suwalski — The Multiplication Method of Negative Reactivity Measurements 18

LETTERS TO THE EDITOR

- S. Ligenza, K. Kisińska, M. Kopcewicz — Investigation on Recoilless Emission of the Nuclear 14.4-keV Gamma Radiation from ^{57}Co in Potassium Nitrate 31

CHEMISTRY

- S. Minc, J. Siejka — Effect of Gamma Irradiation on the Electron Work Function for the Surface of an Industrial Silver Catalyst in an Oxygen or Ethylene Atmosphere at 20° and 120°C 34

LETTERS TO THE EDITOR

- S. Poturaj-Gutniak — Preliminary Evidence for Complex Formation of Trivalent Uranium in Molten Aluminum Chloride 54

ENGINEERING AND EQUIPMENT

- T. Radošzewski — Scintillation Method for Measuring the Activity of Beta Emitters by Counting of Electromagnetic Radiation 58
- S. Zubrzycki — One More Method for Estimating the Parameters Characterizing High-Speed Coincidence Circuits 65

Available From CFSTI TT 68-50011/11-12
AEC-tr-6931/11-12 UC-34

CONTENTS

PHYSICS

- J. Koralewski, E. Rurarz, J. Tys — Heavy-Ice and Deuterium Drive-in Targets for Producing dD Neutrons 1
- J. Chwaszczewska, T. Krogulski, J. Tys — Semiconductor Position-Sensitive Detectors 10

CHEMISTRY

- W. Charewicz, J. Niemiec — Flotation of Anions Using Cationic Surfactants. I. Flotation of Molybdates 15
- M. Zieliński — Carbon-13 Isotope Kinetic Effects in the Decarboxylation of Picolinic Acid in Water, Phenol, and Ortho-Nitrophenol Solvents and in the Decarboxylation of Picolinic Acid Hydrochloride 27
- R. Przytycka, B. Olech — Treatment of Thorium-Containing Waste Waters 38

ENGINEERING AND EQUIPMENT

- Z. Hoffman, J. S. Kosacki — Pair-Selection Methods in Collection of the Most Probable Events in Multiparameter Experiments 45
- E. Stryszak — Analysis of Fluctuations in Integrating Circuits by the Method of the Spectral Density Function 54
- W. Scharf — Results of Research and Development Works on WIT-2 Belt-Conveyor Isotopic Weigh Probes 62
- W. Antoniuk, J. Chmielewski — Notes on the Tuning of a Pulsed NMR Spectrometer 76
- A. Padzik, W. Sołtyk — Method and Equipment for the Electrolytical Enriching of Water in Tritium 81

APPLIED NUCLEAR TECHNOLOGY

- K. Szatyschneider, M. Radwan — A Standardless Method for Quantitative Autoradiography. Part II 90

BIOLOGY

- J. Kwapiński — The Effect of Certain Factors on the Radioactivity of Water in a Shallow Barrage Reservoir 99

Available From CFSTI TT 69-50012/1
AEC-tr-7027/1 UC-34

OPTIKA I SPEKTROSKOPIYA

VOL. XXVII, NO. 6

DECEMBER 1969

(Numbers in parentheses are original Russian page numbers.
These Russian page numbers are also quoted at the head of each paper.)

Oscillator Strengths of the Resonance Lines of Se I, Br II, Kr III, Rb IV, and Te I, II, Xe III, Cs IV	P. F. Gruzdev	479	(877)
The Oscillator Strengths of High Terms of the Principal Series of Potassium	M. A. Mazing and P. D. Serapinas	482	(884)
Variational Lower Limit of the Transition Probability.	T. K. Rebane and P. A. Braun	486	(891)
Optical Orientation of Cadmium. I. Orientation without Buffer Gases	E. B. Aleksandrov and A. P. Sokolov	488	(896)
Multiplet States of Diatomic Molecules with Spin-Orbital Coupling Intermediate between Hund's Cases a and b. II. Particular Solutions of Hill and Van Vleck's Equation	G. A. Khachkuruzov and G. N. Yurkov	493	(905)
Multiplet States of Diatomic Molecules with Spin-Orbital Coupling Intermediate between Hund's Cases a and b. III. Dependence of the Energy Levels on the Effect of Molecular Rotation on the Magnitude of the Spin-Orbit Coupling	G. A. Khachkuruzov and G. N. Yurkov	496	(911)
Calculation and Interpretation of Electronic Spectra of Nitroanilines	A. E. Lutskii and N. I. Gorokhova	499	(917)
Stretching Vibration Frequencies of Free Molecules of the Group II A Metal Halides.	V. I. Baikov	502	(923)
Determination of the True Values of Raman Line Parameters. II	I. D. Morozov and I. F. Kovalyov	506	(930)
Widths and Shapes of Polarized Raman Lines.	N. V. Zubova, N. E. Shalomeyeva, V. S. Gorelik, and M. M. Sushchinskii	508	(935)
Calculation of Output Energies and Powers of the Stokes Components in Stimulated Raman Scattering Based on a Sequential Mechanism in Pulsed Operation	S. K. Potapov and M. A. Kovner	510	(939)
Transfer of Electronic Excitation Energy in Liquid Solutions. II.	M. M. Agrest, S. F. Kilin, M. M. Rikenglaz, and I. M. Rozman	514	(946)
Summation of Excitation Energy in Doped Crystals	K. Pattser	518	(954)
Linear Stark Effect in the Luminescence Spectra of Alkali Fluorides Activated by Hexavalent Uranium	O. D. Gavrilov, A. A. Kaplyanskii, V. N. Medvedev, and N. A. Moskvina	521	(960)
Multiphonon Radiationless Relaxation in Rare-Earth Dopant Ions.	V. Ya. Gamuraz	524	(965)
Formation of Single Pulses from a Ruby Laser Using Ultrasonic Modulated Travelling Wave Diffraction in a Phototropic Medium	I. I. Adrianova, Yu. V. Popov, and V. E. Terentyev	526	(968)
Effect of Laser Radiation on Different Sections of Inert Gas Glow Discharge	S. P. Movchan, A. A. Stepanov, and N. Ya. Taranova	528	(972)
Active Method of Filtering Optical Spatial Frequencies	Yu. E. Dukarevich	529	(975)
Filtering of Random Nonuniform Fields	A. G. Ramm	533	(981)
A Spectrum Analyzer for the Study of Pulse Processes in the Microwave Region	V. Ya. Balakhanov and V. K. Zhivotov	536	(988)
Correlation Spectral Analysis of Isotopes	A. G. Zhiglinskii, A. A. Kalinakov, and E. N. Fafurina	541	(998)

SHORT COMMUNICATIONS

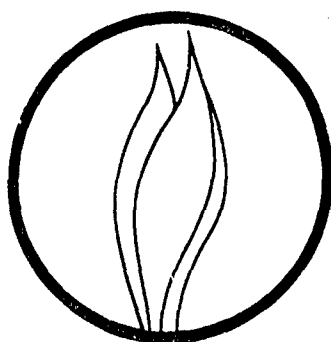
New Lines in the Spectrum of Singly-Ionized Argon in the 2050-1870 Å Region	V. A. Soroka, I. M. Kustanovich, and L. S. Polak	544	(1004)
			(Contd)

Available From The Optical Society of America

OPTIKA I SPEKTROSKOPIYA
Vol 27, No 6, Dec 1969

Holography in Spatially-Incoherent Illumination and Photography	K. V. Konyayev	545 (1005)
On the Mechanism of Transfer of the Triplet-State Energy of Aromatic Ketones to Rare Earth Ions in Liquid Solutions	V. L. Ermolaev and V. A. Tchernin	546 (1007)
Influence of Certain Quenchers of Fluorescence on the Threshold of the Laser Effect in Organic Phosphors	A. V. Aristov, D. A. Kozlovskii, and Yu. S. Maslyukov	548 (1009)
Determination of the Polarizability Anisotropy of CO_3^{2-} and NO_3^- Ions from the Birefringence of Crystals	M. F. Vuk's and V. I. Elfinov	549 (1011)
Failure of the Universal Relationship between Absorption and Fluorescence Spectra in Multicomponent Solutions	A. V. Altaiskaya, N. G. Bakhshiev, and I. V. Pterskaya	550 (1013)
Calculation of Crystal-Field Parameters for the $\text{CaF}_2\text{-Tu}^{2+}$ Crystal	A. L. Natadze and D. E. Onopko	552 (1015)
Bennett Distribution and Change in the Emission and Absorption Spectra in a Strong Field	R. I. Sokolovskii	553 (1017)
On the Nature of an Additional Band at the Long-Wavelength Fundamental Absorption Edge of Photoemulsion Microcrystals	A. L. Kartuzhanskii	555 (1020)
Determination of the Effective Excitation Cross Section of the $6^2\text{P}_{1/2}$ Level of Hg II	S. P. Varshavskii and N. P. Penkin	557 (1022)
Author Index		561 (1025)
Contents List		571 (1040)

Available From The Optical Society of America



Applied Biochemistry and Microbiology

The Faraday Press
cover-to-cover translation of
Prikladnaya Biokhimiya i Mikrobiologiya

Contents Volume 4, Number 2 · March-April 1968

Editorial Board

*Prikladnaya
Biokhimiya i Mikrobiologiya*

a publication of the
Academy of Sciences USSR

V. N. Bukin,
Editor-in-Chief
I. Ya. Veselov,
Associate Editor
P. F. D'yachenko
V. L. Kretovich
L. V. Metlitskii
E. D. Mikhlin
E. L. Ruban
G. K. Skryabin
V. I. Solov'ev
S. V. Chepigo

	Russian page	English page
Changes in the Protein Complex in the Grain of Winter Rye During Ripening. L. G. Priezzheva and V. F. Golenkov	131	97
A Biochemical Study of Apple Cuticle During Growth. N. P. Morozova, T. A. Platonova, and E. G. Sal'kova	139	103
Vitamin B Requirement of Kakhuri-7 Wine Yeast and Dynamics of Amino Acids of the Medium During Alcoholic Fermentation. M. A. Ter-Karapetyan and E. A. Mantashyan	147	109
Conditions Affecting the Biosynthesis of True Vitamin B ₁₂ from Its Analogs in Aqueous Suspension of <i>Propionibacterium Shermanii</i> . T. G. Borisova, Z. L. Loginova, T. A. Palagina, and N. A. Rabinovich	153	114
Effect of Antibiotics on the Composition and Acceptor Activity of <i>Shifella Flexneri</i> Transfer RNA. M. N. Egorova and A. A. Nikiforova	157	117
Monocarbonyl Compounds in Dutch and Russian Cheeses. I. N. Egorov and R. M. Abdullina	162	120
The Effect of Medium Composition on the Formation of Acid-Resistant Glucoamylase by <i>Aspergillus Awamori</i> . R. V. Feniksova and V. G. Ryzhakova	167	124
The Mechanism of Acid Inactivation of <i>Aspergillus Awamori</i> α -Amylase. N. A. Zhrebtsov	174	129
Separation of Enzymes from Concentrated Solutions by Salting Out. M. S. Vaganova, K. A. Kalunyants, and I. Ya. Veselov	182	135
Purified Preparations of Amylase from a Submerged Culture of <i>Bacillus Diastaticus</i> . O. V. Kislukhina	188	139
Method for the Isolation of a Highly Active Complex of Proteases and Peptidases from a <i>Streptomyces Griseus</i> Culture Liquid by Ion-Exchange Resins. V. P. Bogdanov, G. V. Vikha, Yu. A. Rassulin, V. V. Surgai, and E. D. Kaverzneva	192	143
Available from The Faraday Press	(Continued)	

Single Issue: \$35

Annual Subscription: \$120

© 1969 by The Faraday Press, Inc.

All rights reserved. This publication or parts thereof may not
be reproduced in any form without permission of the publisher.

The Faraday Press, Inc.

84 FIFTH AVENUE, NEW YORK, N. Y. 10011

PRIKLADNAYA BIOKHIIMIYA I MIKROBIOLOGIYA

Vol 4, No 2, 1968

	Russian page	English page
Preparation of <i>Aspergillus Awamori</i> Conidia Prior to Inoculation for Surface Cultivation. P. N. Evtikhov and K. A. Kalunyants.	201	150
Detector for Continuous Determination of Dissolved Oxygen Concentration in the Long-Term Cultivation of Microorganisms. M. I. Nazaruk, B. F. Nesterov, and V. M. Yachin	207	155
Polarographic Investigation of Changes in Water-Soluble Proteins Occurring During Heating of Germinating Grain. G. I. Kotlyar, G. Ya. Lebedeva, and T. G. Zhuravskaya	215	161
Brief Communications		
Effect of Molds on the Enzyme Activity, Respiration, and Viability of Stored Grain. L. S. L'vova	218	163
Biosynthesis of Carotenoids by <i>Bl. Trispora</i> in a Medium Containing Maltose. F. B. Kolot and M. G. Golyshova	222	166
Effect of Hen Intrinsic Factor on Absorption and Assimilation of Vitamin B ₁₂ by Chick Tissues. L. N. Gavrilova	225	169
Composition of Sugars in Millet Grain. I. Rakhimbaev	227	171
Production and Certain Properties of Pepsin from Canine Gastric Juice. A. Z. Vafin	229	172
A Comparison of Some Methods for Determining the Rate of Grain Germination. E. I. Gorelova	234	177

Available from The Faraday Press

RADIO ENGINEERING AND ELECTRONIC PHYSICS

RADIOTEKHNIKA I ELEKTRONIKA

NUMBER 10

1969

CONTENTS

	Page
L. G. Nazarova: Propagation of Ultraviolet Radiation in the Surface Layer of the Atmosphere (Review)	1499
L. G. Nazarova: Estimate of Possible Range of Propagation of Ultraviolet Signal on a Surface Pati.	1509
V. S. Chernousov: Scattering of Nonharmonic Electromagnetic Waves by Ideally Conducting Disc Based on Kirchhoff's Approximation.	1513
V. N. Ivanov: Surface Waves in a Semi-Infinite Ribbon Array	1520
V. V. Shevchenko: Nonreflective Lenses for Quasioptical Lines	1526
V. V. Shevchenko: Graphic Classification of Waves Guided by Regular Open Waveguides	1530
L. T. Remizov, G. A. Podoprigora, S. A. Zaytsev, I. V. Oleynikova, A. I. Smurygov, and V. A. Timofe: Recording of Natural Random Low-Frequency Electromagnetic Fields	1533
S. A. Zaytsev, A. V. Potapov and S. V. Beketov: Detection of a Train of Signal Pulses	1537
A. A. Poluektov: Synthesis of an Optimum System for Measurement of Amplitude of a Gaussian Signal with Rapid Fading	1545
A. A. Zagorodnikov: Correlation Function of the Fluctuations of Amplitude of a Radar Signal Reflected from the Sea Surface	1554
E. I. Tsvetkov: Two-Stage Parallel Detection Systems with Memory	1558
V. T. Dolgochub and M. B. Sverdlik: Synthesis of Signals for Optimization of the Ambiguity Function in a Given Region	1563
R. S. Bondarenko: Noncoherent Detection of Wideband Signals in a Multipath Channel with Variable Parameters	1567
R. A. Knyazev and B. I. Shakhtarin: Experimental Investigation of Discrete Synchronization Schemes	1576
N. S. Nikolayeko: Synthesis of Transistor Amplifiers Using Two-Stage Blocks	1580
E. I. Koshurinov: Symmetry Effect of the Potentials of the Sorting System and Cavity of a Maser	1589
V. M. Kuz'michev, N. G. Kokodiy, V. G. Guzhva, V. F. Yefimov and R. A. Valitov: Fast-Response Pyroelectric Display of Pulsed Laser Radiation	1591
V. D. Tron'ko: Faraday Light Modulator with a Tilted Magneto-Optically Active Specimen ...	1595
V. P. Nemtsev and V. A. Romanovskiy: The Influence of Inelastic Electron Scattering on the Spatial Distribution of Charge Injected into Dielectric Films by Electronic Beams	1601
V. A. Romanovskiy: Inelastic Reflection and Absorption of Electrons in Thin Films	1605

BRIEF COMMUNICATIONS

A. O. Izyumov: Frequency Spectrum of Amplitude Fluctuations of a Plane Electromagnetic Wave in Submillimeter Range Propagating in a Surface Layer of Turbulent Atmosphere ..	1609
S. D. Kremenetskiy and V. A. Skachkov: Synthesis of a Plane Curvilinear Radiator	1611
N. A. Yesepkina, V. Yu. Petrun'kin, N. S. Soboleva and G. M. Timofeyeva: A Method of Eliminating Parasitic Polarization in a Variable Profile-Antenna	1614
D. I. Mirovitskiy, V. A. Torgovanov and G. P. Cherkunova: Investigation of Radiation Patterns of Plane Multielement Antennas by Optical Modelling	1618
E. D. Kulikov and A. D. Belik: Application of the Least-Squares Method to the Solution of Boundary Problems in Microwave Electrodynamics	1621
Ye. P. Merkulova: Statistical Characteristics of the Field of a Linear Antenna with a Quadratic Phase Characteristic in the Presence of Amplitude-Phase Errors	1624
A. F. Kazyulin: Theory of Excitation of Waveguides with a Gyrotropic Filling	1627
V. V. Karavayev: Fundamental Property of Moments of a Normal Quantum Field.	1630
V. V. Karavayev: Theoretical Noise Limit of Linear Amplifiers	1633

(Contd)

Available From Scripta Publishing Corp.

RADIOTEKHNIKA I ELEKTRONIKA

No 10, 1969

	Page
V. A. Bogdanovich: Binary Integration of Pulses in the Presence of Noise of Unknown Power .	1636
V. N. Prokof'yev: Noncoherent Detection of Signals Immersed in Noise of Unknown Level . . .	1639
Yu. S. Yurchenko: Investigation of Noise Immunity of Tracking Radar Direction Finders in the Presence of External Noise	1641
R. A. Kazaryan and S. P. Sidorova: Microwave FM Modulation of a He-Ne Laser	1644
V. M. Arutyunyan and A. O. Melikyan: Q-Switched Laser	1645
B. S. Rinkevichyus: Use of a Laser for Particle Velocity Determination in a Two-Phase Flow by a Heterodyne Method	1648
N. V. Karlov and Yu. B. Konev: The Theory of a Laser, Pumped by a Laser Located in the Same Cavity	1650
A. F. Kurin: Cyclotron Maser Theory	1652
I. I. Abkevich and V. S. Latinis: Current Oscillations in Gallium Arsenide for Inductive-Resistive Loading	1655
Ya. P. Zingerman: The Dependence of Work Function of Metal-Film Systems on the Film Thickness*	1657
T. V. Krachino and T. L. Matskevich: Schottky Curves	1660

EDITOR'S NOTE

With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

<u>Soviet Usage</u>	<u>American equivalent</u>
Arch	\cosh^{-1}
Arcth	\coth^{-1} (ctnh ⁻¹)
Arsh	\sinh^{-1}
Arth	\tanh^{-1}
arccos	\cos^{-1} (arc cos)
arctg	\cot^{-1} (arc cot)
arcsin	\sin^{-1} (arc sin)
arctg	\tan^{-1} (arc tan)
ch	cosh
cosec	csc
ctg	cot (ctn)
cth	coth (ctnh)
rot	curl
sch	sech
sh	sinh
tg	tan
th	tanh

Available From Scripta Publishing Corp.

CONTENTS

	Page
S. Živković, T. Bokorov, M. Bakarić, M. Pecelj, D. Avakumović, A. Pavliček, and O. Buk: Comparative Investigation of Linear Programmed and Standard Rations for Finishing Pigs	5
Damjan Zeremski and Viliman Koljajić: Effects of Feeding Number and Intensity in Young Bull Fattening	13
Milorad Mišković and Slobodan Živković: Utilization of Calcium and Phosphorus from Various Phosphorus Sources in Chick Nutrition	19
Radmila Mijović and Petar Ivović: Humus Level Changes in New Croplands in Kosovo and Metohija	27
Dušan Milošević: Influence of the Number of Hoeings on Corn Kernel Yield and the Growth and Development of Johnson Grass	33
Dobrivoje Stanisavljević: Influence of the Time of Top-Dressing on Corn Yield on Smonitsa in Kosovo	41
Milan Segedinac and Života Popović: Economic Efficiency of Mineral Fertilizers in Corn and Sugar Beet Pro- duction	47
Boris Risteovski: Accelerated Production of Seedlings of Incompatible Pear Varieties on Quince by Double Simple Union	57
Duško Brnetić: Effects of Medium Concentration in Culturing the Mediterranean Fruit Fly	65
Petar Zeković: Distribution of the San Jose Scale in Northern Metohija	69
Stevan Jevtić and Borivoje Mišković: A Convenient Method for Determining Cellulose in Plant Material	73

Available from CFSTI TT 69-51001/4

GLASS AND CERAMICS

A translation of *Steklo i Keramika*

Volume 26, Numbers 9-10

September-October, 1969

CONTENTS

Engl./Russ.

NUMBER 9, SEPTEMBER, 1969

Inspection of Production Standards in Honor of the Centenary of V. I. Lenin's Birthday.....	505	1
Temperature Regulation in an Electric Furnace for Annealing Sheet Glass - I. M. Korobko, V. K. Egorov, V. L. Mironov, Yu. V. Seskutov, V. M. Budov, and V. Sh. Yakupo	506	2
Effect of Various Factors on Temperature Stability of the Production Flow of Molten Glass - N. A. Pankova, V. V. Pollyak, and V. D. Soskova	509	4
An Electrochemical Study of the Uniformity of Window Glass Strip - I. V. Timoshenko ..	514	8
Characteristics of Determining the Specific Energy to Fracture in Impact Bending of Glass - V. I. Shelyubskii.....	516	9
Use of Seamless Cristobalitized Quartz Refractory in Periodic Glass Furnaces for Founding Alkali-Free Glass - A. K. Lesnikov, S. M. Panfilenko, L. A. Osipova, D. G. Ostrizhko, and V. D. Rasskazov.....	520	12
Determination of the Coefficient of Thermal Conductivity of Glass and Polymer Fibers - O. F. Shlenskii, N. I. Goncharuk, and V. Ya. Gal'tsov.....	523	14
Properties of Commercial Enamels for Chemical Apparatus - V. V. Vargin and L. Z. Zasukhina	527	17
Completing Socialist Responsibilities at the Workers' Red Banner Khar'kov Tile Factory - G. A. Soldatov	530	20
Low Temperature Bodies from Artemovsk Clay in the Production of 120x65x7 mm Glazed Wall Tiles - L. M. Katsman.....	532	21
A Study of the Effect of Soluble Ca and Mg Salts and Also Chlorides on the Casting Properties of a Slip and the Quality of the Semifinished Product - T. N. Krivonosova and E. A. Galabutskaya.....	535	23
Increasing the Density of Particle Packing in Forming Ceramics - Yu. E. Pivinskii.....	538	25
Production of Ceramic Pigments of the Spinel Type in the MnO-Al ₂ O ₃ -Cr ₂ O ₃ System - S. G. Tumanov, V. P. Pyrkov, and A. S. Bystrikov	543	30
Obtaining Glazes with Predetermined Properties - G. V. Kukolev and G. E. Shtefan.....	545	32
ECONOMICS		
Comprehensive Improvement in the Use of Vertical Glass-Drawing Machines - I. I. Ben'	548	34
PLANT EXPERIENCE		
Mastering of the Production of Champagne Bottles on the "Ruaran-7" Machine - A. V. Khanina, Yu. V. Stefanenko, and P. A. Savchenko	554	39
Device for Mixing Glass in a Feeder - K. A. Strizhevskii and N. N. Kornilov.....	557	41
Saggerless Firing of Majolica - M. G. Krichevskii and L. S. Bobrov.....	558	41

(Contd)

Available from Consultants Bureau

STEKLO I KERAMIKA
Vol 26, No 9-10, 1969

Engl./Russ.

IN THE INSTITUTES

Organotitanium Compounds in the Production of Ceramic Pigments - P. A. Levin.....

560 43

BOOK REVIEWS

K. T. Bondarev - Glass in Construction - Review by S. M. Brekhovskikh.....

562 44

NUMBER 10, OCTOBER, 1969

The Gzhel' "Electric Insulator" Production Association Prepares for Lenin's

Centenary - V. A. Anisimova.....

567 1

Burning Natural Gas with Air-Pressurized Burners - V. P. Kononko, O. L. Mazaeva,

A. A. Krivokon', V. M. Budov, and V. E. Ignatov.....

570 3

Effect of Pressure Fluctuations in the Melter of a Glass Furnace on Surface Foam

Formation - N. A. Pankova and L. Ya. Levitin.....

575 7

Controlling the Density of Sheet Glass - E. I. Smirnov.....

579 9

Dependence of Thermal Expansion and Density of Quenched Glasses on Heat Transfer

- I. A. Boguslavskii, O. I. Pukhlik, and O. N. Khalizeva.....

582 12

Effect of Particle Shape of Grinding Sands on Their Settling Rate during Hydraulic

Classification - N. V. Zolotarev, V. M. Dorodnov, and V. G. Petrov.....

587 16

Effect of Energy Carrier Parameters on the Formation of Staple Glass Microfiber

- N. G. Karakhanidi and Ya. V. Shkol'nikov.....

590 18

Vitreous and Glass-Crystalline Chemically Stable Enamels Based on Glasses of the

$R_2O-Al_2O_3-SiO_2$ System - V. V. Vargin and V. É. Mishel'.....

593 20

Reasons for Inadequate Mechanical and Thermal Durability in Porcelain and Ways of

Raising Its Quality - I. Ya. Yurchak and Kh. V. Petrova.....

598 24

The Use of Fireclay from the Ust'e-Brynkino Deposit in the Production of Industrial

Sanitary Ware - M. K. Gal'perina, Z. N. Safronova, and K. V. Vasil'eva.....

602 26

Ceramic Filters from Basalt - K. A. Smirnova and Zh. M. Levonyan.....

604 28

Mullite Formation in Porcelain Bodies Containing Perlite - I. G. Khizanishvili

and R. A. Mamaladze.....

608 31

Crystalline Glazes for Thin Stoneware - V. A. Krapivin and G. A. Demidova.....

612 35

ECONOMICS

Possibilities of Using Economicomathematical Methods and Computers in the Planning

of Sheet Glass Production - N. V. Paenson and G. F. Kalinina.....

614 36

IN THE INSTITUTES

Production of Decorative Colored Glass Blocks - O. I. Andreeva and L. I. Sankova.....

618 40

Using Porcelain Slabs as Wall Tiles - A. P. Frolov.....

620 41

A Machine for Glazing and Trimming Toroidal Insulators - P. F. Khatuntseva

and A. V. Plaksa.....

621 42

INFORMATION

Fifth All-Union Conference on Glass - O. K. Botvinkin and M. S. Aslanova.....

622 43

Innovations.....

625 34

New Pressed Glass - E. G. Rachuk.....

626 44

Available from Consultants Bureau

The Russian press dates (podpisano k pechati) of the first and last issues covered in this issue of the translation were, respectively, 7/30/1969 and 8/27/1969. Publication of the material translated in this issue therefore is known to have occurred not prior to the earlier of these dates, but must be assumed to have taken place at intervals starting reasonably soon after this date and ending shortly after the later date.

TSVETNYE METALLY
Vol 41, No 7, 1968

SOVIET METALLURGISTS' DAY.....	1	(1)
I. S. Guchetl' and G. M. Lezgintsev BASIC APPROACHES TOWARD DEVELOPING A TECHNOLOGY OF PROCESSING GOLD-CONTAINING ORE.....	2	(2)
V. N. Filimonov, E. A. Vershinin, and V. A. Bocharov EFFECT OF Na_2SO_3 ON OXIDATION BY OXYGEN DURING CYANIDE-FREE FLOTATION OF SULFIDE MINERALS.....	7	(5)
I. I. Shabunin USING AIR TO PURIFY CYANIDE-CONTAINING WASTE WATERS.....	9	(7)
A. V. Clembotskii, L. Ya. Shubov, and A. K. Livshits SELECTIVITY OF DIALKYLTHIOCARBAMATE ACTION DURING SULFIDE FLOTATION.....	11	(8)
S. I. Pol'kin and Yu. M. Glebov A STUDY OF THE FLOATABILITY OF VALUABLE COMPONENTS CONTAINED IN WASTES.....	15	(11)
I. A. Fed'kovskii, M. S. Bagaev, L. I. Chumakov, and G. R. Kurepova INDUSTRIAL TESTS ON SOLAR OIL FOR FLOTATION OF GOLD ORE.....	19	(14)
G. M. Shmelev, N. A. Kommatny, V. A. Kozlovskii, and E. N. Soldatov OPTIMUM METHOD OF LOADING A COPPER-NICKEL CHARGE INTO AN ELECTRIC MELTING FURNACE.....	21	(16)
B. A. Tsylov and V. I. Nedashkovskii AN EXAMINATION OF THE GAS CONTENT IN CARBONYL NICKEL POWDER.....	29	(22)
B. M. Rogov and A. K. Kosmylin A STUDY OF THE POSSIBILITY OF INCREASING THE SILICA CONTENT IN CONVERTER SLAGS.....	31	(23)
O. G. Miller, R. N. Kuz'mina, V. T. Shuvaev, and L. V. Goncharov MAGNETITE IN METALLURGICAL CONVERSION.....	34	(25)
F. D. Yasonov, P. A. Gorbachev, and V. A. Salobutin RECONSTRUCTING AND MODERNIZING FLUIDIZED-BED FURNACES.....	35	(26)
R. A. Isakova, S. M. Mel'nikov, L. S. Cholokhsaev, L. E. Ugryumova, T. V. Dikarevich, and Yu. N. Ogloblin PROCESSING MERCURY-ANTIMONY CONCENTRATES BY THE VACUUM-THERMAL METHOD.....	38	(28)
P. S. Kisly, M. A. Kuzenkova, L. S. Terebulch, L. T. Struk, and G. I. Shtainlyauf TEMPERATURE TRANSDUCERS FOR AUTOMATION OF REVERBERATORY COPPER SMELTING FURNACES..	43	(32)
Yu. G. Roms, B. S. Belen'kii, and Yu. K. Delinarskii SEMI-INDUSTRIAL ELECTROLYTIC CELL FOR THE PRODUCTION AND REFINING OF HEAVY NON-FERROUS METALS IN FUSED SALTS...	46	(34)
V. G. Bryadin, R. K. Ognev, and E. F. Chalykh FLUIDIZED-BED COMPACTION AND COATING OF COMPONENTS WITH PYROLYTIC CARBON.....	52	(38)
A NEW COPPER REFINING METHOD (FOREIGN TECHNIQUE).....	56	(41)
60TH BIRTHDAY OF IVAN SEMENOVICH ELISEEV.....	57	(42)
I. P. Kraus, V. A. Derevyankin, and S. I. Kuznetsov KINETICS OF SODIUM HYDROALUMINOSILICATE FORMATION AND SOLUBILITY IN ALUMINATE SOLUTIONS.....	58	(43)
N. I. Eremin, V. P. Mel'nikova, and V. A. Mazel' AN EXAMINATION OF THE TRUE SOLUBILITY OF SODIUM HYDROALUMINOSILICATE IN ALUMINATE SOLUTIONS.....	63	(46)
V. P. Mashovets, V. V. Kurochkina, N. V. Penkina, L. V. Puchkov, and M. K. Fedorov SOME PHYSICO-CHEMICAL PROPERTIES OF SOLUTIONS IN SYSTEM $\text{Na}_2\text{O}-\text{K}_2\text{O}-\text{Al}_2\text{O}_3-\text{H}_2\text{O}$	67	(49)
N. P. Tomilov and A. S. Berger PHASE COMPOSITION OF PRODUCTS OBTAINED FROM THE SECOND STAGE OF ALUMINATE SOLUTION CARBONIZATION.....	69	(51)
AN ANTI-CORROSION ALLOY (FOREIGN TECHNIQUE).....	72	(53)

(Continued)

Available From Primary Sources
Vol 9, No 7, 1968

Table of Contents (Cont.)

N. M. Zuev, G. M. Sharunova, and V. I. Vukolov EFFECT OF ELECTROLYSIS CONDITIONS ON MAGNESIUM QUALITY.....	73 (54)
R. V. Svoboda, I. M. Mal'tseva, M. L. Blyushtein, and V. V. Lobanov IMPROVING THE QUALITY OF CARBONACEOUS BLOCKS USED TO LINE ALUMINUM ELECTROLYSIS CELLS.....	77 (55)
A. Z. Rul'nova, M. S. Shneerov, A. N. Lyapunov, and L. Yu. Petrova MATHEMATICAL MODEL OF CARBONIZATION PROCESS.....	80 (58)
V. M. Reingol'd and G. A. Khlebnikova SORPTION OF MOLYBDENUM FROM SODA SOLUTIONS WITH AV-17 ANIONITE.....	84 (61)
V. N. Vigdorovich, A. E. Vol'pyan, and G. I. Shuleshko SELECTION OF OPTIMUM ZONE MOVEMENT RATE WHEN USING ZONE RECRYSTALLIZATION.....	87 (63)
B. N. Laskorin, N. M. Smirnova, and Yu. S. Mishukova SEPARATION OF ALKALIES FROM ALUMINUM-VANADIUM SOLUTIONS BY ELECTRODIALYSIS.....	90 (65)
V. T. Sladkoshteev, O. A. Shatagin, S. M. Kozachenko, V. N. Krupenik, A. N. Il'in, M. V. Potapov, M. E. Minaev, S. F. Kirikov, L. M. Lyaski, P. L. Manuilov, O. V. Zaitsev, and A. E. Panfilov CONTINUOUS CASTING OF SOLDER ALLOYS ON THE HORIZONTAL TWO-GROOVE MACHINE.....	92 (67)
V. F. Kalugin, A. P. Khomyachkov, and A. P. Shapovalov MANUFACTURE OF FINE WIDE STRIPS FROM TITANIUM ALLOYS.....	94 (68)
I. L. Perlin, M. Ya. Brovman, Yu. S. Dodin, F. K. Ermokhin, and N. M. Kovaleva DETERMINING THE DEFORMATION RESISTANCE OF ZINC SUBJECTED TO MECHANICAL WORKING.....	97 (69)
I. I. Ivanov, N. S. Rakhmanov, E. V. Molodchinin, S. P. Molodchinina, and R. D. Medvedea EXTRUSION OF THIN-WALLED D16 ALLOY TUBES ON A VERTICAL PRESS.....	100 (72)
R. R. Malinovskii EXTRUSION OF RODS FROM Al-Cr-Zr ALLOYS.....	103 (74)
SUBSTITUTION OF ALUMINUM FOR COPPER IN THE USA (FOREIGN TECHNIQUE).....	104 (77)
G. P. Kalinin, O. P. Elyutin, E. S. Vaulinskii, and V. M. Kudinov MANUFACTURE OF Ti28V-Nb LAMINATED METALS BY THE EXPLOSION TECHNIQUE.....	105 (75)
V. R. Ryabov, L. G. Gvinchevskaya, and A. V. Lozovskaya PROPERTIES OF Kh18Ni9Ti STEEL-AM66 LAMINATED METAL FOLLOWING HEATING.....	108 (78)
V. M. Amosov and V. K. Lutskiy REDUCING THE CARBON CONTENT IN ELECTROLYTIC POWDERS OF TANTALUM.....	112 (81)
V. S. Voblikov and V. M. Kurbatov ENRICHING SLAGS OBTAINED AFTER RE-SMELTING Al ALLOYS	115 (83)
D. Ya. Ligun, S. I. Troyanovich, and S. A. Yudkin FILTRATION PURIFICATION OF Al ALLOYS	118 (85)
A. P. Rudnev 5TH CONGRESS OF NON-FERROUS METALLURGICAL NTO.....	119 (86)
P. V. Molitvin RESULTS OF AN ALL UNION CONFERENCE ON PURIFYING SEWAGE FROM NON-FERROUS METALS PLANTS.....	122 (88)
V. I. Beregovskii PROSPECTS FOR INCREASING THE PRODUCTION AND CONSUMPTION OF NICKEL IN CAPITALIST COUNTRIES.....	125 (90)
NON-FERROUS METALS PRODUCTION IN JAPAN (FOREIGN TECHNIQUE).....	126 (91)
EXPANSION OF NON-FERROUS METALS PRODUCTION IN POLAND (FOREIGN TECHNIQUE).....	126 (91)
R. B. Kal'nitskii and Yu. I. Przhilenakii REVIEW OF "METALLURGICAL LIFTING-CONVEYING MACHINES," BY V. A. KRUKHOV.....	128 (92)

NOTE: Numbers in parentheses represent page numbers in Russian original.

Available From Primary Sources
Vol 9, No 7, 1968

VESTNIK OF THE USSR ACADEMY OF SCIENCES

Vol. 40, No. 4, 1970

Selected articles from the Russian-language periodical Vestnik Akademii Nauk SSSR published by the USSR Academy of Sciences.

CONTENTS	PAGE
The Great Anniversary (M. D. Millionshchikov).....	1
GENERAL MEETING OF THE ACADEMY OF SCIENCES USSR ON QUESTIONS OF TECHNICAL PROGRESS (3-6 FEBRUARY 1970).....	12
Tasks of the Academy of Sciences USSR Connected with Technical Progress (M. V. Keldysh).....	13
Physics and Technical Progress (N. G. Basov).....	21
Computer Technique and Problems of Automation and Control (V. M. Glushkov).....	28
Technical Progress in Power Engineering (V. A. Kirillin, M. A. Styrikovich).....	35
Chemistry and Technical Progress (N. N. Semenov).....	40
The Role of the Earth Sciences in Technical Progress (A. P. Vinogradov).....	47
Problems in the Development of General and Technical Microbiology (G. K. Skryabin).....	54 (Contd)

Available From JPRS 50709

VESTNIK AKADEMIY NAUK SSSR
Vol 40, No 4, 1970

CONTENTS (Continued)	Page
DISCUSSION OF REPORTS.....	64
Session of 5 February (Part I).....	64
Session of 5 February (Part II).....	77
Session of 6 February.....	89
Resolution of the General Session.....	98

Available From JPRS 50709

HERALD OF COMMUNICATIONS

Vol. 30, No. 3, 1970

- USSR -

Selected articles from the Russian-language periodical Vestnik Svyazi, published by the Ministry of Communications USSR and the Central Committee of the Communications Workers Union.

CONTENTS	PAGE
The 30th Anniversary of <u>Vestnik Svyazi</u>	1
EDITORIAL	
The Paths of Technical Progress in Telegraph Communication (B. V. Bronner)	4
COMMUNICATIONS ENGINEERING	
Radio System of the Type RT-300-2-OM (I. M. Vorob'yov)	10
Two-Limit Semiconductor Voltage Relay (N. N. Smirnov, A. I. Finkler)	23
The Use of Embedded and Deeply Placed Grounding Devices (S. A. Sokolov)	28
New Products of a Plant	34
	(Contd)

Available From JPRS 50716

VESTNIK SVYAZI
Vol 30, No 3, 1970

CONTENTS (Continued)	Page
COMMUNICATIONS ENGINEERING ABROAD	
Shown by the Firm "GTE"	35
ORGANIZATION AND OPERATION OF COMMUNICATIONS FACILITIES	
New Regulations on Safeguarding the Communication Lines (I. P. Petrushin, N. V. Luskinovich)	40
VESTNIK SVYAZI	
Motion-Picture Films and Slides on Communications (I. P. Zakharova)	46
Book Reviews	50
Curious Facts	53
Abstracts of Articles Published in <u>Vestnik Svyazi</u> No 3, 1970	55
Answers to the Chainword Puzzle "Handset" Published In the Journal No 1, 1970	56

Available From JPRS 50716

ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKOY FIZIKI
Vol 57, No 3, Sept 1969

	Page	Russian Reference	
Investigation of the Ion Spectrum of a Plasma Heated by a Shock Wave	385	57	705
N. I. Alinovskii, V. G. Eselevich, N. A. Koshilev, and R. Kh. Kurtmullaev			
Anomalous Scattering and Phase Focusing of a Modulated Electron Beam in a Plasma	392	57	716
M. D. Gabovich and V. P. Kovalenko			
Experimental Investigation of a High-frequency Instability in an Ion Beam Interacting with an Electron Background	397	57	725
Z. S. Chernov, P. S. Voronov, N. A. Ovchinnikova, and G. A. Bernashevskii			
Destruction of KDP, ADP, and LiNbO ₃ Crystals by Intense Laser Radiation	400	57	730
G. M. Zverev, E. A. Levchuk, and É. K. Maldutis			
The Cotton-Mouton Effect in Terbium Iron Garnet	404	57	737
R. V. Pisarev, I. G. Siniĭ, and G. A. Smolenskii			
Unidirectional Anisotropy in Single Crystals of Cobalt-iron Hexagonal Ferrites with a Z-type Structure	410	57	749
I. M. Perekalina, A. D. Shchurova, and S. S. Fonton			
Increase of the Critical Temperature of Superconductors Condensed at Low Temperatures	412	57	752
N. V. Zavaritskii			
Electron-nuclear Double Resonance of F Centers in KBr	418	57	763
S. S. Ishchenko, N. P. Baran, M. F. Deĭgen, M. A. Ruban, V. V. Teslenko, and V. V. Udod			
Effect of Magnetic Field on the Crystal Structure of Dysprosium	424	57	774
V. A. Finkel' and V. S. Belovol			
Study of the Interaction Between Two Spin Oscillation Modes During Antiferromagnetic Resonance in the Weakly Ferromagnetic Phase of Hematite	428	57	781
L. V. Velikov, S. V. Mironov, and E. C. Rudashevskii			
Ferromagnetism of Cerium and Neodymium Chalcogenides with a Th ₂ P ₄ Structure	433	57	791
A. T. Starovoĭtov, V. I. Ozhogin, G. M. Loginov, and V. M. Sergeeva			
Resonant and Nonresonant Processes of Excitation Energy Transfer from Tu ³⁺ or Ho ³⁺ Ions to the Er ³⁺ Ions in (Y, Er) ₃ Al ₅ O ₁₂ Crystals	435	57	794
G. M. Zverev, G. Ya. Kolodnyi, and A. M. Onishchenko			
Investigation of the Line Widths of Discrete Energy Losses in Ar ⁺ -Ar Collisions	441	57	806
V. V. Afrosimov, Yu. S. Gordeev, A. M. Polyanskii, and A. P. Shergin			
Plasma Heating in a Two-stream Instability in a Straight Discharge	448	57	819
A. I. Karchevskii, V. N. Bezmel'nitsyn, G. M. Maĭteev, and Yu. A. Muronkin			
Mode Locking in Free-running Ruby and Neodymium Glass Lasers	453	57	827
V. I. Malyshev, A. S. Markin, A. V. Masalov, and A. A. Sychev			
Magnetic Properties of Pure and Chromium and Scandium-substituted Single Crystals of Hematite	457	57	835
R. A. Voskanyan			
Statistical Theory of a Dense Plasma	459	57	838
V. S. Vorob'ev, G. É. Norman, and V. S. Filinov			
Nonlinear Interference Effects in Emission, Absorption, and Generation Spectra	466	57	850
T. Ya. Popova, A. K. Popov, S. G. Rautian, and R. I. Sokolovskii			
Cerenkov Radiation in a Medium with an Inverted Population Level	473	57	864
V. B. Krasovitskii and V. I. Kurilko			
A New Kind of Instability in a Partially Ionized Plasma	476	57	870
A. I. Akhiezer, I. A. Akhiezer, and V. V. Angelciko			

(Contd)

Available From The American Institute of Physics
Vol 30, No 3, 1970

	Page	Russian Reference
Low-frequency Properties of a Weakly-turbulent Plasma in the Region of Frequent Coulomb Collisions V. G. Makhankov and B. G. Shchinov	480	57 877
Nonlinear Theory of Cerenkov Excitation of Regular Oscillations by a Modulated Beam of Charged Particles V. I. Kurilko	484	57 885
The Influence of a Strong Magnetic Field on Small Size Superconductors when Diffuse Reflection Takes Place at the Walls Yu. N. Ovchinnikov	489	57 894
The De Haas-Van Alphen Effect in Thin Metallic Films S. S. Nedorezov	495	57 907
Polarization Effects in Compton Scattering by Relativistic Electrons I. I. Gol'dman and V. A. Khoze	501	57 918
Stimulated Emission of Radiation by Electrons Moving in the Field of a Plane Electromagnetic Wave V. G. Bagrov, Yu. I. Klimenko, and V. R. Khalilov	503	57 922
Quasiclassical Scattering in a Centrally Symmetric Field S. V. Khudyakov	506	57 927
Nonlinear Evolution of Disturbances in a One-dimensional Universe E. A. Novikov	512	57 938
Quantization of Electron Excitations in s-n-s Film Contacts in a Magnetic Field V. P. Galaiko	514	57 941
The Disturbances of the Metric when a Collapsing Sphere Passes below the Schwarzschild Sphere I. D. Novikov	518	57 949
Applicability of the Approximation of a Markov Random Process in Problems Relating to the Propagation of Light in a Medium with Random Inhomogeneities V. I. Klyatskin	520	57 952
Dielectric Constant of a Gas near the Quadrupole Transition Frequency N. A. Dobrodeev	524	57 959
Nonlinear Theory of Interaction between a "Monochromatic" Beam of Relativistic Electrons and a Plasma Ya. B. Faiberg, V. D. Shapiro, and V. I. Shevchenko	528	57 966
Mechanisms of Absolute Negative Conductivity of Thin Films in a Transverse Quantized Magnetic Field A. D. Gladun and V. I. Ryzhyi	534	57 978
Bose Condensation in a Finite Volume M. Ya. Azbel'	537	57 983
Intensity and Polarization of Radiation Multiply Scattered by Freely Oriented Particles or Medium Fluctuations Yu. N. Gnedin, A. Z. Dolginov, and N. A. Silant'ev	540	57 988
Effect of Atomic Collisions on Polarization of Laser Radiation A. I. Alekseev and V. M. Galitskii	548	57 1002
Certain Problems in the Theory of the Stimulated Molecular Scattering of Light V. S. Starunov	553	57 1012
Parametric Excitation of Longitudinal Oscillations in a Plasma by a Weak High Frequency Electric Field N. E. Andreev, A. Yu. Kiryi, and V. P. Silin	559	57 1024
Theory of the Electrical Conductivity of a Weakly Ionized Imperfect Plasma I. T. Yakubov	567	57 1040
Model of a Shock Wave in Solar Wind Plasma A. A. Galeev and R. Z. Sagdeev	571	57 1047
Effect of Bragg Interband Transitions on the Dielectric Constant of Metals A. L. Golovashkin and G. P. Motulevich	575	57 1054

Available From The American Institute of Physics
Vol 30, No 3, 1970

JOURNAL OF GENERAL CHEMISTRY of the USSR

A translation of *Zhurnal Obshchei Khimii*

Volume 39, Number 11

November, 1969

CONTENTS

Engl./Russ.

Portrait of Aleksandr Nikolaevich Nesmeyanov	2317 2379a
Metal Chelates Based on β -Diketones of Ferrocene and Cyclopentadienylmanganese Tricarbonyl - Ya. M. Paushkin, T. P. Vishnyakova, I. D. Vlasova, and F. F. Machus	2318 2379
Complex Formation of Aluminum Iodide and Aluminum Bromide with Certain Bidentate Ligands - E. P. Skorobogat'ko and E. Ya. Gorenbein	2322 2383
Lanthanide and Yttrium Borocitrates - L. M. Gevlich and V. V. Serebrennikor.	2325 2386
Behavior of Rare-Earth Acetates in a Mixed Solvent Consisting of Acetic Anhydride and Chloroform - A. P. Kreshkov, A. N. Yarovenko, and L. A. Bondareva	2328 2388
Catalysis of Hydrogen Transfer by Methods Assumed to be Similar to Those of Fermenta- tion. IV. Catalytic Systems of Hydration Reaction - R. B. Ivanova and M. L. Khidekel'	2332 2393
Dissociation Constants of 5-Hydroxybenzene-1,2,4-tricarboxylic, and 2-Hydroxybenzene- 1,3,5-tricarboxylic Acids - O. E. Presnyakova and R. S. Prishchepo	2340 2401
Synthesis of Organophosphorus Compounds Based on Azomethines. VI. Reaction of Schiff Bases with Diphenyl Phosphate - N. S. Kozlov, V. D. Pak, V. G. Poroshina, and Z. A. Abramova.	2343 2404
Synthesis of Organophosphorus Compounds Based on Azomethines. IV. Preparation of Di- phenyl Esters of Aminophosphonic Acids - N. S. Kozlov, V. D. Pak, and E. S. Elin ..	2346 2407
Reactions of Ester Amides of Phosphorous Acids. XV. Action of α -Chloro Substituted Al- dehydes and Ketones on Mixed Amides of Sulfonic and Phosphorous Acids - V. S. Abramov and M. G. Gubaidullin	2350 2411
Thermal Rearrangement of Normal Esters of Phosphorous Acid - A. N. Pudovik and V. V. Krupnov	2354 2415
Reactions of Phenylphosphonous Acids with α -Ketocarboxylates and α -Ketophosphonates - A. N. Pudovik, I. V. Gur'yanova, and G. V. Romanov.	2357 2418
Reactions of Mixed Phosphorous-Carboxylic Anhydrides with Esters of Glyoxalic and Pyruvic Acids - A. N. Pudovik, I. V. Gur'yanova, S. P. Perevezentseva, and T. V. Zykova	2361 2421
Reaction of Trialkyl Phosphites with Pyruvic Esters in Proton Donor Solvents - A. N. Pudovik, I. V. Gur'yanova, and S. P. Perevezentseva.	2364 2424
Esters and Nitriles of Propynylphosphonoacetic Acid - A. N. Pudovik and N. G. Khusainova	2368 2426
Electronic Effect of Phosphorus Containing Substituents. Inductive Constants (σ_1) of Phos- phenyl Groups - E. N. Tsvetkov, R. A. Malevannaya, D. I. Lobanov, N. G. Osipenko, and M. I. Kabachnik	2369 2429

(Contd)

Available from Consultants Bureau

Geometric Configuration of Esters of Alkenephosphonic Acids - V. M. Ignat'ev, I. A. Zeiliger, L. N. Vorob'ev, and B. I. Ionin	2374	2433
Asymmetric Phosphine Oxides Based on the Acetylene-Allene Isomerization of Propargyl Phosphinites - V. M. Ignat'ev, T. N. Timofeeva, B. I. Ionin, and A. A. Petrov	2379	2439
cis- and trans-Isomeric Derivatives of 1-Propenephosphonic Acid - T. N. Timofeeva, V. M. Ignat'ev, B. I. Ionin, and A. A. Petrov	2386	2446
Investigation in the Series of Phosphonic and Phosphonous Acid Derivatives. LXIV. Re- action of Partial Esters of Phosphorous and Arylphosphonous Acids with Orthoacetic Ester - V. V. Moskva, A. I. Maikova, and A. I. Razumov	2391	2451
Synthesis of Quasi-Phosphonium Salts - L. V. Nesterov, A. Ya. Kessel', and R. I. Mutalapova	2394	2453
Nucleophilicity of the Phosphoryl Group - L. V. Nesterov, A. Ya. Kessel', Yu. Yu. Samitov, A. A. Musina, and G. N. Romanova	2397	2457
Unsaturated Esters of Dithiophosphoric Acid. IV. Unsaturated Dithiophosphoric Acids and Bis[O,O-dialkene(alkyne)thiophosphono] disulfides - N. I. Zemlyanskii and Ya. I. Mel'nik	2401	2461
Synthesis of 1-Phosphatidyl-myo-inositol-4-phosphate - S. P. Kozlova, N. B. Tarusova, and N. A. Preobrazhenskii	2403	2463
Organic Derivatives of Elements of Groups V and VI. IX. Mass Spectra of Vinylacetylene Sulfides - G. M. Bogolyubov, V. F. Plotnikov, Yu. A. Boiko, and A. A. Petrov	2407	2467
Regrouping of Arsenic Dialkylarylsulfides under the Action of Halogen-Substituted Acids - Yu. F. Gatilov and M. G. Kralichkina	2413	2473
Synthesis of Tri-n-propyl- and Tri-n-butylaluminum Etherates - V. P. Mardiydn, P. N. Gaponik, N. K. Voronina, and L. V. Gaponik	2416	2475
α -Arsenided Aldehydes and Ketones - V. V. Kudinova, Yu. A. Ve'ts, V. L. Foss, and I. F. Lutsenko	2420	2479
Decomposition of Triethyltin Peracetate - M. K. Safonova, N. A. Sokolov, V. A. Shushunov, and G. T. Brilkina	2425	2483
Reactions of Trihalogenogermanes with Olefins - V. F. Mironov, L. N. Kalinina, and T. G. Gar	2428	2486
Reaction of Diethyl- and Diphenylcadmium with Organic Peroxides - G. A. Razuvaev, V. N. Pankratova, V. A. Muraev, and I. V. Bykova	2431	2490
Thermal Decomposition of Alkyl-Substituted Bisarene π -Complexes of Chromium and Molybdenum - G. A. Razuvaev, G. G. Petukhov, and A. N. Artemov	2435	2494
Triethylgermyl(triethylgermyloxy)mercury - G. A. Razuvaev, Ya. A. Aleksandrov, G. N. Figurova, and V. N. Glushakova	2439	2499
Study of the Pyrolysis of Dimethyldiacetoxysilane and ϵ , ω -Diacetoxypolydimethylsilox- anes by the Methods of Gas-Liquid Chromatography and Infrared Spectroscopy - M. G. Voronkov, N. G. Sviridova, I. B. Klimenko, N. G. Shelkunov, and V. N. Churmaeva	2442	2502
Synthesis and Chromatographic Analysis of Methyl(propyl)dimethylcyclodisiloxanes - N. P. Timofeeva, Yu. A. Yuzhakovskii, I. P. Yudina, S. N. Borisov, and K. I. Sakodinskii	2446	2506
Aminolysis of Organochlorosilanes - L. V. Kozlova, D. Ya. Zhinkin, and E. D. Pozhidaev . . PMR Spectra of 1,3-Dihydro-N-alkyl(aryl)disilazanes - K. A. Andrianov, V. V. Yastrebov, A. I. Chernyshev, V. M. Kopylov, and L. M. Khananashvili	2451	2511
Perfluoroalkylphenylene Diisocyanates and Their Derivatives - B. F. Malichenko and O. N. Tsypina	2454	2513
Geminal Aliphatic Difluoroaminoalkanois, Their Acetates and bis-(α -Difluoroaminoalkyl) Ethers - A. V. Fokin, Yu. M. Kosyrev, V. A. Makarov, and N. P. Novoselov	2456	2515
	2460	2519

Available from Consultants Bureau

(Contd)

Reactions of Perfluoro Acid Hydrazides. I. Preparation of Perfluoroacylaminoguanidines and Their Cyclization - V. A. Lopyrev, L. P. Sidorova, O. A. Netsetskaya, and M. N. Grinblat	2466	2525
The Presence of Water of Crystallization in 3-Chloro-4-methyl-7-hydroxycoumarin - G. A. Kozlov and T. F. Kozlova	2469	2529
Infrared Spectroscopic Study of Zirconium and Hafnium Benzoates and Hydroxybenzoates - K. I. Petrov, Z. N. Prozorovskaya, L. N. Komissarov, G. N. Voronskaya, and V. A. Smirnov	2471	2530
Ferrocenehydroxamic Acids and Chelate Compounds - T. P. Vishnyakova, I. A. Golubeva, and L. M. Timofeeva	2475	2534
Phthalocyanines and Related Compounds. III. Synthesis and Electronic Absorption Spectra of Certain Nitrogen-Containing Heterocyclic Phthalocyanin Analogs - M. G. Gal'pern and E. A. Luk'yanets	2477	2536
Chemistry of Polymixin M. XV. Synthesis of Analogs; Production of Cyclic Peptides Containing L- α - γ -Diaminobutyric Acid - E. M. Saad Salem, N. V. Fedoseev, and A. B. Silaev	2482	2541
Chelate Compounds with Optically Active Ligands. VI. Synthesis and Properties of N-Alkyl- α -phenylethylthiocarbamates of Alkali and Alkali-Earth Metals - E. G. Rukhadze, E. V. Pavlova, V. V. Dunina, and A. P. Terent'ev	2486	2545
Study of Materials Entering into the Composition of Essential Oils. XLV. Synthesis of Analogs of Auxins Based on α -Pinene - R. A. Yurina, A. D. Dembitskii, M. I. Goryaev, and V. S. Bazalitskaya	2492	2551
Phthalocyanines and Related Compounds. II. Synthesis and Certain Properties of 2,3-Naphthalocyanines - S. A. Mikhailenko and E. A. Luk'yanets	2495	2554
Synthesis of Protoporphyrin (IX) - R. P. Evstigneeva, V. N. Guryshv, A. F. Mironov, and G. Ya. Volodarskaya	2499	2558
Application of the Thermographic Method to the Study of the Diene Synthesis Reaction. IV. Reaction of Tetracyclone with Dimethyl Maleate, Vinyl Acetate, and Dimethyl Acetylenedicarboxylate - B. A. Arbuzov, A. V. Fuzhenkova, and G. Kh. Zaidullina ...	2504	2563
Alkoxy Compounds. XL. Tautomerism and Certain Properties of 5-Alkyl-5 α - and 5-Alkyl-5 β -alkoxyethylbarbituric Acids - A. V. Bogatskii, L. Ya. Glinskaya, and A. I. Gren'	2508	2568
Synthesis of Purine-Pyrimidine Triribonucleotides in the Presence of Pancreatic Ribonuclease - E. M. Kogan, E. N. Morozova, N. S. Tikhomirova-Sidorova, and G. E. Ustyuzhanin	2515	2576
Reactions of Antitumorigenic Compounds. II. Determination of Relative Rates of Reactions between Aromatic 2-Chloroethylamines and Anions - L. S. Yaguzhinskii and A. D. Chinaeva	2519	2581
Potential Anticancer Agents. III. Dichlorodiethylhydrazones of Δ^4 -Testosterone and Certain of Its Derivatives - L. N. Volvoel'skii, G. V. Knorozova, and A. B. Simkina ...	2523	2585
BRIEF COMMUNICATIONS		
Addition of N,N-Dichlorophosphamides to Alkenes - A. M. Pinchuk, L. N. Markovskii, and T. N. Kovalevskaya	2532	2594
The Reaction of O,O-(o-Phenylene)chlorophosphite with Carboxylic Acid Anhydrides - M. B. Gazizov, T. I. Sobchuk, and A. I. Razumov	2534	2595
Diphenacyl- and Phenacylphenylphosphinic Acids - A. V. Kirsanov, Ya. P. Shaturskii, and G. K. Fedorova	2535	2596
The Reaction of Phosphorus Trilodide with Triphenylphosphine - N. G. Feshchenko, Zh. K. Gorbatenko, and A. V. Kirsanov	2536	2596
Synthesis of 1,3-Dienic Germanium Hydrocarbons - M. D. Stadnichuk and A. A. Petrov ...	2537	2597
		(Contd)

Available from Consultants Bureau

Transformation of Compounds Containing the Si-N-C-X System of Bonds. A New Method for the Preparation of Isocyanates by the Phosgenation of N-Silyl-Substituted Amines - V. F. Mironov, V. D. Sheludyakov, and V. P. Kozyukov	2538 2598
Synthesis of 1-Trimethylsilyl-4-methyl-4,5-epoxy-2-pentyne - F. Ya. Perveev, N. A. Ampilogova, and V. A. Timoshchuk	2539 2599
Reaction of Dialkyl Chlorophosphites with Carboxylic Acid Anhydrides - M. B. Gazizov and A. I. Razumov	2541 2600
Synthesis of 1,1,3,3-Tetramethyl-1,3-digerma- and 1,1,3,3-Tetramethyl-3-germa-1- silacyclobutanes - V. F. Mironov, S. A. Mikhailiyants, and T. K. Gar	2542 2601
Hydrolysis of 1,3,5,7-Tetramethyl-2-thioniazulene - A. A. Ginesina and A. V. El'tsov	2543 2601

Available from Consultants Bureau

The Russian press date (podpisano k pechatl) of this issue was 11/17/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

JOURNAL OF
GENERAL CHEMISTRY
of the USSR

A translation of *Zhurnal Obshchei Khimii*

Volume 39, Number 12

December, 1969

CONTENTS

Engl./Russ.

Centenary of the Journal of the Russian Chemical Society (Zhurnal Russkogo Khimicheskogo Obshchestva, Zhurnal Russkogo Fiziko-Khimicheskogo Obshchestva, and Zhurnal Obshchei Khimii) — S. N. Danilov	2545	2603
Binary Systems Formed by Perchloric Acid with Trifluoro- and Trichloro-Acetic Acids — V. I. Ligus, Yu. I. Malov, V. Ya. Rosolovskii, and Yu. Ya. Flalkov.	2569	2631
Investigation of the Interaction of Methacrylic Acid with Some Amides by Methods of Physicochemical Analysis — E. V. Kuznetsov, L. A. Budarina, L. A. Émikh, and R. A. Khairullina	2573	2635
Extrema on Curves for the Relation of Retention Values to the Compositions of Binary Stationary Phases — I. M. Shevchuk, V. A. Granzhan, V. M. Sakharov, and N. V. Kovalenko.	2576	2638
Borotartrates, Boroditartrates, and Double Boroditartrates of Lanthanides and Yttrium — L. M. Gevlich and V. V. Serebrennikov	2579	2641
Polarographic Investigation of Acrylamide in Nonaqueous Media. II — A. S. Gorokhovskaya and L. F. Markova	2584	2645
Herbicidal Action of Some Bisquaternary Ammonium Salts and Their Surface-Active Properties — G. S. Supin, Z. S. Sidenko, L. D. Stopov, L. A. Bakumenko, and V. M. Dziomko	2589	2651
Hydrolytic Stability of the P-S Bond in S-(Aminoalkyl) Phosphorothioates — F. Yu. Rachinskii, N. M. Slavachevskaya, and L. V. Pavlova	2592	2654
Reactions of Epihalohydrins with Tervalent Phosphorus Derivatives. V. Reactions of Epichlorohydrin with Phosphoramidous and Phosphorimidous Esters — V. S. Abramov, R. N. Savintseva, and F. G. Fatykhova.	2596	2658
Reactions of Epihalohydrins with Tervalent Phosphorus Derivatives. VI. Reactions of Epichlorohydrin with Trimethyl and Triisopropyl Phosphites — V. S. Abramov and R. N. Savintseva	2602	2664
Reactions of Dialkylphosphinous Chlorides with 2-Vinylpyridine Hydrochloride — V. S. Tsivunin, L. N. Krut'skii, T. V. Zykova, and G. Kh. Kamal.	2604	2666
Electronic Effects of Diphenylarsino and Diphenylarsinyl Groups — E. N. Tsvetkov, D. I. Lobanov, G. Kh. Kamal, N. A. Chadaeva, and M. I. Kabachnik	2608	2670
Unsaturated Stanna Hydrocarbons. XVI. Preparation of Stannylallenes from 2-Alkynyl Halides — É. S. Sivenkov, V. S. Zavgorodnii, and A. A. Petrov	2611	2673
Organic Derivatives of Elements of Groups V and VI. XII. Dipole Moments of Diphosphines, Distibines, Disulfides, Diselenides, and Ditellurides. Axial Asymmetry of the E-E Bond — K. S. Mingaleva, G. M. Bogolyubov, Yu. N. Shlyk, and A. A. Petrov	2616	2679

(Contd.)

Available From Consultants Bureau

Organic Derivatives of Elements of Groups V and VI. XIII. Spin-Lattice Relaxation in Dimethyl Disulfide. Rotational Mobility and Internal Rotation - V. V. Frolov and G. M. Bogolyubov.	2620	2683
Isomerization of p-Barene into m-Barene - V. I. Stanko, V. A. Brattsev, and Yu. V. Gol'tyapin.	2623	2686
Dipole Moments of Equimolecular Ether Complexes of Boron Trifluoride - V. A. Topchii and Yu. Ya. Borovikov.	2627	2689
Synthesis of Organosilicon Monomers Containing Groups with an Ether Link - E. S. Sobolev, L. M. Antipin, and V. F. Mironov.	2629	2691
Mechanism of the Protolysis of Chloro(2-chlorovinyl)mercury - L. P. Kur'yaninova, O. L. Kaliya, O. N. Temkin, and R. M. Flid.	2633	2695
Reactions of the Adducts of Alkylolithiums and Enynic Hydrocarbons with Chlorotrimethylsilane - L. M. Zubritskii, Kh. V. Bal'yan, and L. N. Cherkasov.	2636	2697
Synthesis of (Trichlorogermyl)-Substituted Alcohols - V. F. Mironov, E. M. Berliner, and T. K. Gar.	2640	2701
Synthesis of Trialkyl[p-(vinylthio)phenyl]silanes - N. N. Vlasova, F. P. L'vova, N. V. Komarov, S. M. Ponomareva, and V. G. Sakharovskii.	2644	2705
Organoberyllium Compounds and Their Reactions. IV. Reactions of Acylhaloberylliums with Aromatic Ketones - I. I. Lapkin and G. Ya. Zinnatullina.	2647	2708
Synthesis of N-(Perfluoroalkanimidoyl)perfluoroalkanamides and of Trisperfluoroalkyls-triazines from Them - G. B. Fedorova and I. M. Dolgopol'skii.	2649	2710
Halofurans. III. Electrochemical Fluorination of Fluorine-Containing 2-Substituted Tetrahydrofurans - N. A. Ryabinin, I. P. Kolenko, L. N. Pushkina, V. F. Kollegov, and B. N. Lundin.	2655	2716
Metalation of 1-Heptene with Alkyl-Lithium, -Sodium, and -Potassium in Presence of Triethylamine. Effect of the Cation of the Metal - V. A. Serov, I. A. Chernyshev, and Yu. T. Gordash.	2659	2720
Stereochemistry of Benzylhydrazones - A. N. Kost and M. A. Yurovskaya.	2662	2723
Mechanism of the Acid Catalysis of the Reactions of Ethylene Oxide with Amines - N. N. Lebedev and M. M. Smirnova.	2670	2732
Catalysis of Hydrogen Transfer by Methods Supposedly Similar to Enzymic Methods. V. Dimethylglyoximate Complexes of Cobalt as Catalysts for the Transfer of Activated Hydrogen - E. N. Sal'nikova, S. N. Zelenin, and M. L. Khidekel'.	2675	2738
Catalysis of Hydrogen Transfer by Methods Supposedly Similar to Enzymic Methods. VII. Catalyst System 1,2-Naphthoquinone - Metal Ion - S. N. Zelinin, M. L. Khidekel', and V. F. Shuvalov.	2683	2746
Initial Stages of the Autoxidation of Tetraethyllead - Yu. A. Aleksandrov and M. N. Spiridonova.	2693	2756
Synthesis and Investigation of 2-(Bis-2-haloalkylamino)ethyl Esters. I. N-Acetylglycine 2-(Bis-2-chloroethylamino)ethyl Ester - G. G. Blinova, V. I. Rozental', and E. G. Sochilin.	2697	2760
Synthesis and Investigation of 2-(Bis-2-haloalkylamino)ethyl Esters. II. 2-(Bis-2-chloroalkylamino)ethyl Dimethyl- and Diethyl-Carbamates - G. G. Blinova, T. D. Zhilinskaya, and E. G. Sochilin.	2701	2764
Synthetic Investigations in the Field of Polyenic Compounds. XXX. Electrophilic Replacement of Methoxy by 3-Methyl-2-butenyl in the Synthesis of Coenzyme Q ₁ - E. A. Obol'nikova, O. I. Volkova, L. S. Golovkina, N. S. Vul'fson, and G. I. Samokhvalov.	2706	2769
Conformation of Medium-Sized Dipeptide Rings. I. Synthesis of Cyclodepsipeptides - L. I. Andreeva, A. G. Lyakisheva, V. K. Antonov, and M. M. Shemyakin.	2710	2774

(Contd.)

Available From Consultants Bureau

Synthesis of the Glycine Analog of Gramicidin S on a Polymeric Carrier — L. Yu. Sklyarov and I. V. Shashkova	2714	2778
LETTERS TO THE EDITOR		
Synthesis of 2- and 3-(Chloromerucyl)indoles — L. G. Yudin, A. I. Pavlyuchenko, and A. N. Kost	2719	2784
Reactions of Compounds with an Si—N—C—X System of Bonds. Methyl Nitroso(trimethylsilylmethyl)carbamate — V. D. Shel'dyakov, G. D. Khatuntsev, and V. F. Mironov.	2720	2785
New Method for the Synthesis of Dialkoxydialkyltins — M. G. Voronkov and Yu. P. Romadan.	2721	2785
Oxidative Imination of Sulfur — L. N. Markovskii and E. S. Levchenko	2722	2786
Synthesis of 2,3,4,5,6-Penta-O-tosyl-sn-myo-inositol — É. G. Zhelvakova, O. G. Ul'yanova, V. I. Shvets, and N. A. Preobrazhenskii	2724	2787
Hydrolysis of Pyrimidine Nucleoside 2',3'-Phosphates and Their Alcoholysis by Nucleosides in Presence of Pancreatic Ribonuclease in Strongly Cooled Solutions — G. E. Ustyuzhanin and É. M. Kogan	2725	2788
Preparation of 2-Propynyl Compounds of Group IVB Elements — V. S. Zavgorodnii, É. S. Sivenkov, and A. A. Petrov.	2727	2789
Preparation of Acetylenic Tin Compounds with the Aid of Triethyl(ethylthio)tin — É. S. Sivenkov, V. S. Zavgorodnii, and A. A. Petrov	2728	2789
Polarization Model of Electron Impact in the Mass Spectrometry of Organic Compounds — G. M. Bogolyubov	2729	2790
DISCUSSIONS		
Possibility of the Formation of Siliconium and Silanolate Ions — K. K. Popkov	2730	2791
INDEX		
Author Index, Volume 39, Numbers 1-12, 1969	2733	
Tables of Contents, Volume 39, Numbers 1-12, 1969	2743	

The Russian press date (podpisano k pechatii) of this issue was 12/9/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

JOURNAL OF APPLIED CHEMISTRY of the USSR

A translation of *Zhurnal Prikladnoi Khimii*

Volume 42, Number 12

December, 1969

CONTENTS

Engl./Russ.

Production of Concentrated Phosphorus-Potassium Fertilizers Containing Nutrient Elements in Predetermined Ratio - S. I. Vol'fkovich and É. G. Polievktova	2505 2641
Technology of Liquid Ammonium Carbonate-Urea Fertilizers - I. M. Kaganskii, G. I. Vilesov, L. N. Éraizer, A. P. Masterov, and L. V. Lopatin	2510 2646
Structural Changes in Potassium Metaphosphate Modified by Various Additives - A. I. Soklakov and N. L. Portnova	2514 2651
Boundaries of the Metastable Region of Ammonium Phosphates - V. S. Yushina and G. D. Kharlampovich	2520 2658
Interaction of $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ with Sodium Carbonate Solutions - N. I. Eremin and M. S. Durandina	2524 2663
Thermal Decomposition of Aluminum Nitrate Nonahydrate - N. M. Drobot and E. I. Khazanov	2529 2668
Hydrolysis of Tetracalcium Aluminoferrite in Weakly Alkaline Sodium Chromate Solutions - B. V. Mirolubov, V. A. Ryabin, I. A. Shevchenko, and G. V. Mukasheva . .	2534 2673
Interaction of Nitrogen Oxides with Ammonium Nitrate Solutions - L. Ya. Tereshchenko, M. B. Pozina, and N. N. Bashlacheva	2538 2678
Study of Thermal Decomposition of Anhydrous Ferric Bromide and of Its Crystalline Hydrate - S. A. Amirova, N. I. Vorob'ev, and V. A. Rupcheva	2543 2683
Conditions of Preparation, Structure, and Certain Properties of Yttrium Diboride - L. Ya. Markovskii, N. V. Vekshina, Yu. D. Kondrashev, T. K. Voevodskaya, and B. Z. Pitirimov	2549 2690
Study of Catalysts of Hydrogen Chloride Oxidation - P. Zorber, I. P. Mukhlenov, V. M. Pomerantsev, and V. P. Kuznetsova	2554 2696
Influence of Additives on the Kinetics of Calcium Sulfate Crystallization - A. A. Kinzhalov, L. D. Skrylev, S. I. Rempel', and Yu. A. Sibirtsev	2558 2700
Interaction in Melts of Potassium and Cadmium Fluorides and Chlorides - I. N. Belyaev and A. K. Doroshenko	2562 2704
Fractionation of Certain Microimpurities during Crystallization of Ammonium Paratungstate from Aqueous Ammoniacal Solutions - G. I. Gorshtein and A. I. Baliner .	2565 2707
Thermooxidative Breakdown of Water-Repellent Organosilicon Coatings - A. A. Pashchenko, A. I. Gaevskaya, M. G. Voronkov, and S. I. Bass	2568 2711
Protection of Iron against Oxidation by Thin Layers of Silicate Melts - N. N. Popov and A. A. Appen	2573 2716
Gas Content of Titanium Melted in the Suspended State - L. A. Firsanova, A. A. Fogel', O. P. Obukhov, and Z. A. Guts	2579 2723
Electrolysis of Sulfuric Acid Solutions of Molybdenum (VI) with a Mercury Cathode - M. S. Ketegenova, E. F. Speranskaya, and M. T. Kozlovskii	2584 2727

(Contd)

Available From Consultants Bureau

Method for Determination of the Ascent Velocity of Gases in Gas-Lift and Bubbling Process, and Character of Variation of This Velocity - R. A. Melikyan	2589	2733
Theory of Mass Transfer in Nonsteady-State Flows of Gas and Dispersed Liquids - I. G. Plit	2595	2739
Kinetics of Separate and Mixed Sorption of Germanium (IV) and Arsenic (III) on Carbons Impregnated with Ferric Hydroxide and Tartaric Acid - D. Ya. Evdokimov and E. A. Kogan	2601	2745
Preparation of Water-Resistant Granulated Silica Gel and Study of Its Properties - G. M. Belotserkovskii, V. N. Novgorodov, V. Kh. Dobruskin, and T. G. Plachenov	2605	2749
Influence of the Nature of Functional Groups in the Original Polymers on the Porous Structure and Adsorption Properties of Carbon Adsorbents - V. P. Musakina and T. G. Plachenov	2610	2756
Electrophoretic Concentration of Aqueous Suspensions of Polytetrafluoroethylene - N. E. Yavzina, A. F. Nikolaev, L. V. Chereshevich, and D. D. Chegodaev	2615	2762
Influence of Temperature and of the Degree of Saturation of Rubber Globules with Emulsifier on Interaction of Carboxylated Latex with Collagen and with Collagen Fibers - G. A. Karlina and L. N. Erkova	2619	2766
Liquid-Vapor Equilibria in Systems Formed by Isopropylamines, Isopropyl Alcohol, and Water - V. M. Komarov and B. K. Krichevstov	2624	2772
Preparation of Highly Pure Chloromethanes - A. G. Nikitenko, V. T. Vdovichenko, V. S. Dmitrukha, L. I. Vasil'kova, and L. I. Tereshchuk	2628	2777
Kinetics of Hydrogenation of 3,4-Dichloronitrobenzene to 3,4-Dichloroaniline under Pressure - A. A. Bezdenezhnykh, I. I. Bat', A. P. Orlov, P. N. Ovchinnikov, and I. Ya. Tyuryaev	2632	2781
Absorption Spectra of Acrylonitrile-Vinylsulfonyl Fluoride Copolymers - N. P. Kulikova, S. A. Rostovtseva, and Yu. A. Konkhn	2638	2787
Formation of Oligomeric Products and Side Process of Epichlorohydrin Hydrolysis during Synthesis of Epoxy Resins - S. M. Rozentuler, A. G. Pozamantir, and A. F. Nikolaev	2642	2792
Investigation of the Purity of Coal-Tar Toluene - V. M. Nabivach and S. S. Yatsenko	2647	2797
Influence of the Conditions of Sulfate Cooking (with Prehydrolysis) of Poplar Wood on the Quality Characteristics of Unbleached Pulp - T. S. Bryuzgina and L. E. Akim	2651	2802
Additional Data on Activation of Cellulose by Amines - N. I. Klenkova, N. A. Matveeva, O. M. Kulakova, and L. A. Volkova	2655	2806
Interaction of Dimethylolurea with Water-Soluble Acetylcellulose - G. A. Petropavlovskii, G. G. Vasil'eva, and G. Rakhmanberdiev	2660	2813
BRIEF COMMUNICATIONS		
Chemistry of Dehydration of Normal Superphosphate - L. N. Shchegrov, V. V. Pechkovskii, and L. S. Eshchenko	2665	2820
Explosion Hazards in Work with Xenon Fluorides - V. D. Klimov, V. A. Legasov, and V. N. Prusakov	2667	2822
Composition of Solid Solutions of Sodium Aluminoferrite in the System $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 - \text{Na}_2\text{O} \cdot \text{Fe}_2\text{O}_3 - 2\text{CaO} \cdot \text{SiO}_2$ - A. I. Gaziev, N. I. Eremin, and A. M. Dmitrieva	2670	2825
Diffusion Coefficients of Beryllium in a Melt of Potassium and Sodium Chlorides - I. F. Nichkov, E. A. Novikov, S. P. Raspopin, and V. P. Butorov	2674	2828
Volatility of Boron Compounds at High Temperatures - P. S. Mamykin and T. A. Drozdova	2676	2829
Sorption of Ruthenium from Acid and Alkaline Solutions on KU-2 Cation Exchange Resin and on AV-17 and AN-1 Anion Exchange Resins - V. G. Sorokin, A. I. Zhurin, and V. K. Kuz'min	2678	2831
Some Characteristics of Sorption of Germanium by Anion Exchangers - V. P. Meleshko and G. E. Dubrovskaya	2680	2833

(Contd)

Available From Consultants Bureau

Electrical Properties of Mg ₂ Sn in the Stoichiometric Region — E. N. Nikitin, L. L. Zaitseva, V. K. Zaitsev, and É. N. Tkalenko	2684	2836
Electron-Microscopic Study of Datolite Sinter — L. N. Kalitina, N. V. Garkunova, L. G. Olert, and N. I. Lazebnaya	2687	2838
Influence of Particle Coagulation on the Porous Structure of Electrophoretic Deposits — I. S. Lavrov, A. N. Lazarev, G. A. Vostrov, and M. N. Pechatnikov	2690	2841
Thermal Decomposition of Pyridine Complexes of Platinum (II) — Yu. N. Kukushkin and E. S. Postnikova	2694	2845
Study of Cathodic Polarization during Simultaneous Discharge of Cobalt and Zinc Ions in Sulfate Solutions — A. M. Evrokhina and B. P. Yur'ev	2697	2847
Dependence of the True Surface Area of Electrodeposited Copper on Surface Roughness — A. F. Mazanko and V. V. Stender	2700	2850
Influence of the Structure of the Arylsulfonamide Component on the Colorimetric Characteristics of Daylight Fluorescent Paints Based on Melamine-Formaldehyde-Arylsulfonamide Resins — L. M. Podgornaya, D. G. Pereyaslova, L. I. Voropal, and B. M. Krasovitskii	2703	2853
Study of Hydrate-Gas Phase Equilibrium in the Ethylene-Propane System — V. I. Fomina and S. Sh. Byk	2706	2855
Liquid-Vapor Equilibrium in the System Acetone-Benzene-Toluene-Isopropyl Alcohol and Verification of Data Obtained by the Open Evaporation Method — T. A. Vitman and V. T. Zharov	2710	2858
Phase Equilibria in the System 4,4-Dimethyldioxane-1,3-Water — T. M. Lesteva, S. K. Ogorodnikov, and A. I. Morozova	2714	2862
Alkylation of Diphenyl by Isobutyl Alcohol in Presence of Polyphosphoric Acid and an Emulsifier — N. S. Kozlov, A. G. Klein, and L. V. Kiseleva	2716	2863
Influence of Salts on Extraction of Toluidines — I. M. Korenman and T. M. Kochetkova	2719	2866
Liquid-Vapor Equilibrium in the System Benzene-Acetic Acid-Acetic Anhydride — M. L. Molochnikov, T. S. Kudryavtseva, and V. B. Kogan	2722	2868
INDEX		
Author Index, Volume 42, Numbers 1-12, 1969	2729	
Tables of Contents, Volume 42, Numbers 1-12, 1969	2739	

The Russian press date (podpisano k pechati) of this issue was 12/15/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

JOURNAL OF STRUCTURAL CHEMISTRY

A translation of *Zhurnal Strukturnoi Khimii*

Volume 10, Number 5

September-October, 1969

CONTENTS

Engl./Russ.

<p>Electron-Diffraction Investigation of Gaseous Uranium and Thorium Tetrahalogenides II. Investigation of Uranium and Thorium Tetrachlorides and Tetrabromides — Yu. S. Ezhov, P. A. Akishin, and N. G. Rambidi</p> <p>Electron Diffraction Study of Amorphous $H_2O_2-H_2O$ Systems—Yu. A. Mal'tsev and L. I. Nekrasov</p> <p>Calculation of the Thermodynamic Properties of Cavity Water Molecules Based on an Expansion of the Density Function—Yu. I. Neronov</p> <p>Model of the Collective Motion of the Water Molecules in Water I. Frequency of the Activated Displacements of the Molecules—V. I. Yashkichev</p> <p>Vibrational Spectrum of Aqueous Solutions of Acetonitrile—A. I. Sidorova, Yu. V. Gurkov, L. V. Moiseeva, and T. G. Braginskaya</p> <p>Interlayer Polarization in Crystalline Glycerine Containing Small Additions of Water —V. A. Tolkachev, A. D. Milov, V. K. Ermolaev, and A. S. Chernobrov</p> <p>Position and Mobility of Water Molecules in Desmine—L. V. Ivleva, S. P. Gabuda, and A. G. Lundin</p> <p>NMR Analysis of Water in Beryls—N. I. Zavarzina, S. P. Gabuda, V. V. Bakakin, and G. M. Rylov</p> <p>Investigation of Copper Complexes of Valine by Optical Spectroscopy and Radio Spectroscopy —L. N. Grigor'eva and A. G. Dusheiko</p> <p>Infrared Spectra and Structure of 1,1-Dinitroalkane Salts—V. A. Shlyapochnikov, V. M. Brusnikina, L. I. Suvorova, O. V. Lebedev, L. I. Khmel'nitskiĭ, and S. S. Novikov</p> <p>Investigation of Aquacations of Beryllium, Magnesium, Aluminum, Scandium, and Yttrium in Crystals and in Aqueous Solutions by the Method of Vibrational Spectroscopy—V. A. Sipachev and A. I. Grigor'ev</p> <p>Low-Frequency Raman Spectra in Crystalline Molecular Complexes—V. E. Volkov, V. F. Shabanov, and A. V. Korshunov</p> <p>Dipole Moments and Structure of Several Organoselenium Compounds. IV. cis-trans Isomerism in β-Halovinylphenylseleno- and Thioethers—L. M. Kataeva, E. G. Kataev, and T. G. Mannafov</p> <p>Connection between X-Ray Spectra and Molecular Levels—S. M. Blokhin, A. P. Sadovskii, G. N. Dolenko, and V. M. Bertenev</p> <p>Shifts of the Last X-Ray Lines and Electronic Structure of Compounds—V. I. Nefedov</p> <p>Colored Forms of Mercuric Oxide—S. S. Batsanov, É. M. Moroz, S. S. Derbeneva, E. V. Dulepov, A. I. Lapshin, and V. I. Alkin</p> <p>Crystal Structure of tri(Ethylenediamine)cadmium Thiosulfate $[Cd(en)_3]S_2O_3$ —N. V. Podberezskaya, V. V. Bakakin, and S. V. Borisov</p>	<p>661 763</p> <p>666 769</p> <p>672 776</p> <p>676 780</p> <p>681 786</p> <p>685 791</p> <p>690 797</p> <p>696 804</p> <p>702 811</p> <p>706 816</p> <p>710 820</p> <p>715 825</p> <p>719 830</p> <p>722 833</p> <p>725 837</p> <p>730 843</p> <p>734 847 (Contd)</p>
---	--

Available From Consultants Bureau

CONTENTS

(continued)

ZHURNAL STRUKTURNOY KHIMII
Vol 10, No 5, Sept-Oct 1969

Engl./Russ.

Cis and Trans Structures of MO ₂ Groups in Dioxo Compounds of Metals in Groups V, VI, VII, and VIII of the Periodic Table—L. O. Atovmyan and M. A. Porai-Koshits	740	853
Crystalline Structure of 1-Phenylimino-2-p-Methoxyphenyl-3-Ethoxyindene-2, C ₂₄ H ₂₁ O ₂ N—V. I. Andrianov, A. A. Kemme, B. L. Tarnopol'ski, and R. P. Shibaeva	745	859
Crystalline and Molecular Structures of Trimeric Diethylamide of Metaphosphoric Acid —V. I. Andrianov, N. G. Bokii, V. D. Cherepinski-Malov, B. L. Tarnopol'ski, and Yu. T. Struchkov	751	865
Crystalline and Molecular Structures of Dimethyl Piperidine Acetonitrile—L. G. Vorontsova, V. I. Andrianov, and B. L. Tarnopol'ski	758	872
Crystalline and Molecular Structures of Nitroisoxazolidine—S. L. Ginzburg, M. G. Neigauz, L. A. Novakovskaya, S. S. Novikov, V. A. Tartakovskii, I. E. Chlenov, Z. A. Akopyan, A. I. Gusev, and Yu. T. Struchkov	763	877
Symmetry of the Potential Functions for the Case of Crystals Consisting of Molecules of Two Kinds I. Symmetry of Molecules of One of the Types 1 or 1—P. M. Zorkii and A. E. Kister	768	882
Choice of the Optimal Basis Set in Calculations on Many Atom Inorganic Molecules Using the Nonempirical MO LCAO SSP Method—N. M. Klimentov and M. E. Dyatkina	772	886
Calculation of Overlap Integrals of the General Form—N. P. Borisova and L. P. Bokacheva ..	778	893
Calculation of the Molecular Orbitals of Complex Molecules II. Group Coefficients to Molecular Integrals for the Calculation of the Self-Consistent-Field Matrix Elements. Tetrahedral Structures—E. L. Rozenberg, S. P. Dolin, and M. E. Dyatkina	782	897
Electron Structure of PbS-Type Semiconductors in a Semiempirical Strong-Coupling Method—A. A. Levin and I. K. Popova	793	908
Spin Polarization of π Electron System in σ Electron Radicals. I Modification of McLachlan's Method—G. M. Zhidomirov, D. V. Schastnev and N. D. Chuvyilkin ...	800	916
BRIEF COMMUNICATIONS		
X-Ray Investigation of Sulfuric Acid—I. M. Shapovalov and I. V. Radchenko	804	921
X-Ray Diffraction Study of Aqueous Solutions of Ammonium and Potassium Fluorides —D. S. Terekhova, A. I. Ryss, and I. V. Radchenko	807	923
Temperature Relationship of the Nuclear Quadrupole Resonance Frequency in Urea —A. S. Gur'evich and L. I. Strelets	811	926
Nuclear Dynamic Polarization in Weak Fields on Decomposition of Benzoyl Peroxide —S. V. Rykov, A. L. Buchachenko, and V. I. Baldin	814	928
Molecular Motion and Configuration of ZrF ₇ ³⁻ —V. P. Tarasov and Yu. A. Buslaev	816	930
N ¹⁴ NMR in Paramagnetic Ni(II) Acetylacetonate Complexes with Organic Ligands —Yu. I. Molin	819	932
F ¹⁹ NMR Spectra of Some Benzthiazolyl-2-perfluoroalkenes—N. M. Sergeev, N. A. Malichenko, and L. M. Yagupol'ski	821	934
NMR of the BF ₂ -Chelates of β -Di- and β , β' -Tricarbonyl Compounds—N. N. Shaper'ko, L. N. Kurkovskaya, V. G. Medvedeva, A. P. Skoldinov, and L. K. Vasyanina	824	936
Comparison of the X-Ray Spectroscopic, Optical, and Theoretical Data on the Electronic Structure of Carbon Monoxide and Carbon Dioxide—V. I. Nefedov	827	938
X-Ray Structural Determination of Potassium Trinitratouranilate—I. I. Kapshukov, Yu. F. Volkov, and G. N. Yakovlev	830	940
Crystal and Molecular Structure of Chlorobis(acetylacetonato)-cyclopentadienylzirconium —V. S. Sudarikov, N. G. Bokii, V. I. Kulishov, and Yu. T. Struchkov	832	941

(Contd)

Available From Consultants Bureau

	Engl./Russ.
X-Ray Structural Analysis of the Potassium Salt of Dinitroacetonitrile—N. V. Grigor'eva, N. V. Margolis, I. N. Shokhor, I. V. Tselinski, and V. V. Mel'nikov	834 943
Calculation of F ₂ and Cl ₂ Molecules using the Self-consistent MO LCAO Method —V. M. Surazhski, N. M. Klimenko, and M. E. Dyatkina	837 945
Homoatomic Unsaturated Systems as Ligands. I. General Consideration —E. M. Shustorovich	839 949
Structure of the Valence Zone of Covalent Crystals in a Specified Variant of the Semiempirical Method of Equivalent Orbits and Approximation of the Strong Bond —A. A. Levin and A. A. Dyatkina	842 949
 REVIEWS	
Determination of Three-Dimensional Structures of Molecules by Gas Chromatography on Graphitized Carbon Black and on Monolayers of Planar Molecules Deposited on It—A. V. Kiselev, K. D. Shcherbakova, and Ya. I. Yashin	844 951

The Russian press date (podpisano k pechatu) of this issue was 10/9/1969.
Publication therefore did not occur prior to this date, but must be assumed
to have taken place reasonably soon thereafter.

Available From Consultants Bureau

Soviet Physics TECHNICAL PHYSICS

A Translation of "Zhurnal Tekhnicheskoi Fiziki"

(Russian Original Vol. 39, No. 11, pp. 1925-2124, November, 1969)

Vol. 14, No. 11, pp. 1451-1598

May, 1970

CONTENTS

		PAGE	RUSS. PAGE
Diffraction of a Plane Electromagnetic Wave on an Ideally Conducting Plane with a Circular Aperture. Yu. V. Pimenov and R. A. Metrikin	(T)	1451	1925
Impossibility of Producing Dispersive Electron-Optical Systems with Two-Dimensional Electrostatic and Magnetostatic Fields. E. M. Yakushev. . .	(T)	1458	1934
Path of Charged Particles through Three-Electrode Telescope Deflection Systems. B. V. Bobykin, V. M. Kel'man, Yu. A. Nevinnyi, and L. M. Sekunova	(E/T)	1463	1941
Reflection of Electromagnetic Waves from a Stratified Plasma. V. I. Miroshnichenko	(T)	1473	1954
Effect of Toroidal Geometry on Magnetic Surfaces in a Stellarator. I. S. Danilkin and I. K. Karpenko.	(T)	1477	1959
Instability of a Current-Carrying Homogeneous Plasma. V. I. Aref'ev.	(T)	1487	1973
Two-Stream Ion Instability in a Plasma Traversed by an Ion Beam of Finite Dimensions. A. A. Goncharov and G. S. Kirichenko.	(T/E)	1492	1979
Determination of the Electron Energy Distribution in a Plasma in the Presence of Oscillations. Yu. M. Kagan, V. M. Milenin, N. K. Mitrofanov, and V. L. Smirnov.	(T/E)	1497	1985
Excitation and Ionization in a Helium Microwave Discharge. A. I. Maksimov.	(E/T)	1500	1989
Matching of a Microtron Resonator to a Waveguide. I. M. Matora and R. V. Khar'yuzov	(T/E)	1506	1997
Behavior of Charged Particles near Current-Carrying Elements of a Magnetic Shield. D. Kh. Morozov.	(T)	1512	2005
Axially Symmetric Electromagnetic Field in a Cylindrical Cavity Resonator with Conducting Irises or Drift Tubes. V. G. Andreev	(T)	1516	2011
Accelerator Output Devices. 1. Achromatic Magnetic Deflection Systems. V. P. Belov and A. M. Kokorin.	(T)	1520	2018
Design of High-Q Cavities and Sections of Iris-Loaded Waveguides with Large Apertures for Particles. A. N. Didenko and R. G. Kaminskaya	(T/E)	1527	2029
Prebunching in a High-Current Linear Ion Accelerator with a Low Injection Energy. V. A. Enal'skii, V. V. Osipov, A. P. Fedotov, and B. K. Shembel'.	(T)	1530	2034 (Contd.)

Available from American Institute of Physics

Vol 14, No 11, 1970

ZHURNAL TEKHNIЧЕСКОЙ ФИЗИКИ

Vol 39, No 11, 1969

		RUSS. PAGE PAGE
Possible Mechanism for the Formation of the Fast Component in an Electrodynamically Accelerated Plasma. <u>N. A. Khizhnyak</u>	(T)	1534 2040
Experimental Investigation of a Linear Electron Accelerator Section with Slit-Filter Irises. <u>G. D. Kramskoi, I. A. Grishaev, A. I. Zykov,</u> <u>V. M. Grizhko, E. Z. Biller, E. K. Ostrovskii, and V. V. Kondratenko</u> . .	(E)	1543 2054
Time Lag of the Spectrum of a Solid-State Laser with Strongly Degenerate Modes. <u>A. M. Ratner, V. S. Solov'ev, and T. I. Tiunova</u>	(T/E)	1547 2059
Eigenmodes of a Laser Resonator with Concave Mirrors and a Hole for Beam Extraction. <u>G. Shennagel'</u>	(T)	1553 2066
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. I. <u>V. I. Petrosyan, É. I. Dagman,</u> <u>D. S. Aleksenko, and P. A. Skripkina</u>	(T/E)	1560 2076
Certain Peculiarities of Electrical Explosion of Metal and Semiconductor Specimens in Vacuum. II. <u>V. I. Petrosyan and É. I. Dagman</u>	(T/E)	1567 2084
Supersonic Gas Jet as a Vacuum Seal. <u>M. Yu. Bredikhin, A. M. Il'chenko,</u> <u>E. I. Skibenko, and V. B. Yuferov</u>	(T/E)	1573 2092
Cryogenically Cooled Channels as Differential Pumping Systems. <u>V. B. Yuferov, E. I. Skibenko, and B. V. Glasov</u>	(T/E)	1577 2097
Corona Discharge in an Air Stream. <u>Yu. S. Bortnikov, V. A. Nesterov,</u> <u>I. B. Rubashov, and V. I. Chaplii</u>	(E)	1579 2100
Theory of the Low-Voltage Arc in the Thermionic Converter. <u>A. A. Belokon' and É. B. Sonin</u>	(T/E)	1583 2105
Hollow-Cathode Thermionic Converter Operating with a Low-Voltage Cesium Arc. <u>É. P. Busygin, V. G. Grigor'yants, and I. P. Yavor</u>	(E)	1593 2119

Available from American Institute of Physics
Vol 14, No 11, 1970

Soviet Physics TECHNICAL PHYSICS

A Translation of "Zhurnal Tekhnicheskoi Fiziki"

(Russian Original Vol. 39, No. 12, pp. 2125-2292, Dec., 1969)

Vol. 14, No. 12, pp. 1599-1744

June, 1970

CONTENTS

	PAGE	RUSS. PAGE
In Memory of Boris Pavlovich Konstantinov	1599	I
Field of a Charged Particle Moving along the Axis of an Optically Active Cylinder. <u>O. S. Mergelyan</u>	(T) 1604	2125
Plasma Stability in a Corrugated Magnetic Field. <u>V. F. Aleksin and V. I. Yashin.</u>	(T) 1608	2130
Stability of Trapped-Particle Oscillations in a Nonneutral Plasma. <u>S. E. Rosinskii and V. G. Rukhlin.</u>	(T) 1612	2136
Dynamic Stabilization of a Pinch in a Longitudinal Magnetic Field. <u>M. G. Nikulin.</u>	(T/E) 1618	2144
Optical Characteristics of the Beam of a Linear Electron Accelerator. <u>G. K. Dem'yanenko and P. M. Ryabka</u>	(E) 1622	2150
Production of Nonmonochromatic Charged-Particle Beams Using Generalized Amplitude and Phase Functions. <u>Yu. N. Grigor'ev and V. V. Petrenko</u>	(T) 1625	2154
Plasma Polarization in the Low-Frequency Region. <u>A. F. Aleksandrov,</u> <u>A. A. Kuzovnikov, V. S. Sviridkina, and V. V. Tarasova</u>	(E) 1628	2158
Incoherent Scattering of Electromagnetic Waves from a Plasma-Filled Waveguide. <u>I. P. Yakimenko</u>	(T) 1632	2163
Virtual Cathode in a Spherical Diode. <u>B. V. Eliseev and Yu. P. Mordvinov</u>	(T) 1637	2169
Discharge Formation in Tubes. <u>L. N. Tunitskii and E. M. Cherkasov.</u>	(T) 1640	2173
Investigation of a Confined Hot-Cathode Discharge in a Magnetic Field. <u>O. V. Kozak and L. L. Pasechnik</u>	(E/T) 1643	2177
Effect of Misalignment of Resonator Mirrors on Losses and Angular Distribution. <u>V. V. Lyubimov and I. B. Orlova.</u>	(T) 1648	2183
Effect of Laser and Medium Parameters on Second-Harmonic Generation. <u>V. D. Volosov</u>	(T) 1652	2188
Motion of He^+ Ions through He in Crossed Fields. <u>L. L. Pasechnik</u> <u>and V. V. Yagola</u>	(E/T) 1659	2198
New Method for Measurement of Permittivity at Millimeter and Submillimeter Wavelengths. I. Permittivity of Thin Films. <u>V. V. Pilipenko,</u> <u>G. G. Polovnikov, V. G. Sologub, and V. P. Shestopalov</u>	(E/T) 1662	2203
Gas Motion behind a Strong Shock Front with Radiation Losses. <u>V. A. Metelitsyn.</u>	(T) 1670	2215

(Contd)

Available From The American Institute of Physics
Vol 14, No 12, June 1970

ZHURNAL TEKHNIЧЕСКОY FIZIKI
Vol 29, No 12, 1969

		PAGE	RUSS. PAGE
BRIEF COMMUNICATIONS			
Certain Properties of Transition Radiation in Uniaxial Crystals. <u>O. S. Mergelyan.</u>	(T)	1673	2220
Selection of Longitudinal Modes in a Gas Laser with a Three-Mirror Resonator. <u>I. M. Belousova, O. B. Danilov, and A. F. Zapryagaev</u>	(E)	1676	2223
Stress Distribution in Transparent Objects by Holographic Interferometry. <u>A. N. Zaidel', V. S. Listovets, and Yu. I. Ostrovskii</u>	(E)	1678	2225
Nonlinear Interaction of Surface Waves in Nonisothermal Plasma. <u>A. N. Kondratenko and V. G. Shaptala</u>	(T)	1681	2229
Optimum Electrical Power of Thermionic Converters with Mo, W, Re, and Ir Cathodes. <u>V. A. Shustov and T. K. Zvezdkina</u>	(E)	1683	2231
Recombination Coefficient of a Weakly Ionized Gas in an Electric Field. <u>I. S. Veselovskii</u>	(T)	1685	2233
Strong Absorption of Electromagnetic Radiation in an Inhomogeneous Collisionless Plasma. <u>V. Ya. Davydovskii and E. M. Yakushev</u>	(T)	1687	2236
Influence of the Finite Length of a Cylindrical Probe on the Ion Current. <u>Yu. M. Kagan and V. I. Perel'</u>	(T)	1689	2238
Weakly Charged Gas between Coaxial Electrodes. <u>I. B. Chekmarev.</u>	(T)	1692	2241
The Langmuir Law and the Hydrodynamic Solution for One-Dimensional Motion of a Charged Gas. <u>I. B. Chekmarev</u>	(T)	1695	2245
LETTERS TO THE EDITOR			
Design Parameters for a Monochromatic External Cyclotron Beam. <u>Yu. G. Basargin</u>	(E)	1696	2247
High-Output High-Coherence Diffraction-Limited Ruby Laser. <u>N. E. Korneev,</u> <u>Yu. I. Pavlov, and A. V. Folomeev</u>	(E)	1699	2250
ERRATA		1701	
AUTHOR INDEX		1705	
SUBJECT INDEX		1731	

Available From The American Institute of Physics
Vol 14, No 12, June 1970

INDEX TO AUTHORS

This index does not include authors listed in the cover-to-cover tables of contents.

- A -

Abel, R.	39	Angeleiko, V.V.	131
Abremskaya, S.I.	71	Anichkina, V.S.	58
Adam, Ya.	111	Anisimov, B.V.	84
Adler, E.	110	Anisimov, V.	3
Adushkin, V.V.	81	Antal, Janos	139
Afanas'yev, V.G.	46	Antilhue	38
Afredj, Rabah	26	Antonov, P.	5
Agafon ov, Ye. A.	125	Antonovich, A.V.	139
Ageyev, N.	95	Apekin, A.S.	49
Ageyev, N.V.	92, 95	Aptekar, I.L.	133
Ageyev, P. Ya.	94	Archimede	11
Ailloud, P.	75	Ardenne, M.V.	89
Akatnov, N.I.	41	Arifin, Zaenal	32
Akhiezer, I.A.	131	Arkharov, V.I.	97, 120
Aksel'rod, I.R.	84		131
Aksenenok, G. A.	42	Armaganyan, Z.	4
Aksenova, Ye.I.	95	Arnoult, J.	103
Aksyutin, L.	117	Arzamastsev, Ya. I.	94
Alayev, G.P.	72	Asai, S.	114
Alberny, R.	104	Asamo, K.	114
Aleksandr, M.L.	118	Asaturyan, A. Sh.	117
Aleksenko, G.V.	90	Astier, K.	102
Alekseyev, I.F.	119	Aurich, D.	105
Alekseyev, S.S.	7	Avdeyeva, L.	8
Alekseyevskiy, Ye.Ye.	42	Avedikova, T.M.	62
Aleksic, T.	89	Averichev, Yu.	14
Aleksyuk, M.M.	98	Aver'yanov, A.B.	80
Alikhanyan, S.I.	47	Avetisyan, Dzh. A.	84
Alikhanyan, S.N.	47	Avneri, Arye	27
Aliyev, G.A.	80	Avramova, Mariana	
Allain, C.	102	Peycheva	15
Allemand, L.R.	104	Ayala, Javier	36, 37
Alteras, I.	65	Aymard, J.P.	102
Al'tshuller, Ye.	117	Ayzenberg, A. S.	116
Altukhov, V.K.	92	Ayzenberg, M.	136
Alyavdin, V.A.	91	Azbel, D.S.	129
Amarhuu, D.	43		
Ambrosch, H.	88	- B -	
Amedick, Egon	122	Bacescu, M.	59
Amirkhanov, M.I.	60	Bacmann, J. J.	75
Anakioski, Dusan	19	Badia, M.	76
Andel, J.	101	Badulescu, Galina	22
Andreu, B.	36	Baerlecken, E.	108
Andreychin, Razum	126	Bahr, W.	122
Andreyev, V.L.	59	Baimov, N. I.	93
Andriyanov, V.A.	85	Bakhshiyan, F. A.	130
		Bakhshi-Zade, A. A.	72

Bakhvalov, V. M.	124
Bakum, B. I.	29
Balaban, L.	74, 75
Balakirev, V. S.	86
Balashov, A.	7
Balazh, E.	111
Balevski, Angel	139
Bandzragch, B.	33
Bannykh, O.	96
Banshchikov, V. M.	51
Baranov, N.	41
Baranov, V. I.	71
Baranova, S. I.	60
Baranova, V. P.	49
Barashnev, N. I.	95
Barbetrac, A.	102
Barbu, I.	115
Bardenheuer, F.	108
Bardossy, G.	77
Barety, J.	66
Baronkin, Yu. F.	126
Barrillon, Raymond	23
Barsukov, Ye. G.	119
Barton, K.	110
Basalayev, V. N.	58
Bash, V. Ya.	130
Basiladze, S. C.	84
Baskin, A. I.	4
Bastecky, J.	64
Batenchuk, Ye. N.	120
Batsanov, S.	80
Bauch, W.	83
Bauer, F.	83
Bauer, K. H.	109
Baumann, H. G.	106
Baumback, H. H.	77
Baush, H.	91
Bay, A. S.	98
Baykov, I.	12
Baykurt, Fakir	30
Bazhenov, A. Ye.	120
Beaumont, B.	87
Beck, G.	103
Begunov, A. I.	98
Bekh, A. D.	85
Belev, P.	16
Belevich, R. R.	81
Beliy, V. A.	130
Bel'kovich, V. M.	52
Belotserkovskiy, O. M.	132
Belous, L. F.	84
Bel'tsov, B. A.	71
Belyakov, A. M.	4
Benedeti, Xavier	39

Benesovsky, F.	77
Benko, Yu. K.	57
Benzhitskiy, A. G.	49
Beqja, Hamit	22
Beranger, G.	134
Berdichevskiy, L. S.	62
Berdyshev, G. D.	60
Berents, A. D.	72
Berezin, Yu. A.	131
Berezovskiy, B.	120
Berg, H.	77
Bergel'sin, B. O.	61
Berger, Carlos	38
Berger, H.	121
Berglund, Frederik	70
Beritic, T.	70
Berkovskaya, K. F.	86
Berlin, A. A.	74
Bernard, A.	101
Berneron, R.	103
Bersimenko, O. P.	73
Bertein, H.	88
Bertinov, A. I.	84
Beshchinskiy, A. A.	90
Betten, J.	104
Bettiza, Enzo	23
Beyeler, M.	134
Beysembiyev, K.	11
Bezborod'ko, M. D.	91
Bezborodov, A. M.	46
Bezzhonov, V. N.	119
Bianchi, G.	136
Biesterfeld, W.	106
Biquet, J.	65
Bikubulatov, Sh. Kh.	119
Bilik, Sh. M.	96
Binh Luan	39
Birkner, Siegfried	21
Birman, I. B.	58
Biryukov, Ye. A.	46
Biryukova, A.	8
Bityukov, Ye. P.	49
Biyanki, V. B.	52
Biyanov, G. F.	120
Blagojevic, Z.	70
Blanchard, P.	102
Blanter, M. Ye.	99
Blazejak	108
Bloem, J.	75
Blume, H. W.	16
Bobko, I. M.	7
Bobzin, W.	106
Bochirol, L.	75
Bodyul, I.	9, 10
Boethig, B.	66

Bogdanov, N. A.	97
Bogdanova, Ye. G.	44
Bogomolov, O.	5
Bogoyavlenskiy, K. S.	47
Bohomoletz, M. de L.	112
Boiteux, M. M.	126
Bojnican, V.	101
Bokserman, Yu. I.	90
Bokshteyn, S. Z.	130
Bolcher, A. N.	97
Bologni, G.	123
Boltirikova, B.	11
Bonch-Osmolovskiy, A. G.	126, 129
Borisov, B. S.	120
Borisov, Ye. V.	98, 117
Borisova, L. N.	47
Borodin, V. Z.	129
Borovskiy, I. B.	96, 97
Borozinets, B. V.	87
Bortkovskiy, R. S.	44
Borzenko, S.	12
Boucraut, M.	102
Boulon, M.	116
Bouvier, G.	106
Boyarshinov, V. A.	94
Bradescu, A.	18
Brailovskaya, I. Yu.	116
Brandt	105
Braneanu, Valentina	19
Brazsnyikova, M. G.	68
Bredov, V.	2
Bremer, P.	127
Bressat, Rene	75
Bretin, L.	104
Brio, B. S.	86
Brnier, Jaroslav	16
Brodskiy, A.	120
Broglia, Luigi	138
Brousil, J.	124
Bruchkov, Angel	22
Bruevich, S. V.	44
Brukov, A. T.	1
Brullmann, M.	127
Bruse, E.	17
Bucki, r.	17
Bucki, J.	89
Buckle, H.	107
Budenny, S.	11
Budyko, M. I.	79
Bugai, N. V.	117
Bugakov, V.	132
Bugaychuk, A. M.	137
Bugayev, B.	8
Bugayev, V. A.	79

Bugrov, V. A.	73
Bukhman, N. D.	63
Buravkin, G.	12
Burenina, N. K.	60
Burer, Th.	76
Burgmann, W.	103
Burka, M. I.	117
Burs, Ye.	13
Burstein, Usi	29
Burylev, B. P.	129
Bushev, A. V.	81
Buslavsky, V. G.	44
Butoma, B.	118, 119
Butomo, N. V.	52
Butorin, N. V.	56
Butorina, L. G.	55
Byalik, G. I.	86
Byallovich, Yu. P.	48
Bychatin, Donat Alekseyevich	85

- C -

Caillet, M.	134
Camagni, P.	139
Camus, J. C.	66
Capron, A.	65
Carius, W.	107
Carvajal, Victor Hugo	38
Catala, Jean-Michel	23
Cecen, K.	83
Chadzis, V.	99
Chain, D.	137
Chalyy, V.	10
Chamni	124
Chang P'i-yuan	82
Chapelot, A.	88
Chapskiy, K. K.	51
Charpy, G.	103
Chaudron, G.	75
Chauvel, Jean-Francois	25
Chebataroff, Jorge	83
Chebotarev, V. P.	96
Chechin, D. A.	118
Chekanova, Ye.	14
Chekmarev, A. P.	96
Chektarev, A. P.	93
Ch'en En-Chiu	82
Chepiga, V.	13
Cherednichenko, K.	7
Cherenkova, N. F.	85
Cherkasskaya, P. M.	96
Chernakova, G. N.	72
Chernaya, N. S.	72

Chernikin, V. I.	117
Chernikov, S.	1
Chernikova, L. A.	80
Chernogorov, N.	13
Chernov, B. G.	94
Chernyak, M. I.	99
Chernychev, R. N.	85
Chernyy, I. L.	6
Chevenard, P.	103
Chezelpretre, B.	41
Chiang Huai	30
Ch'ien Yuan-heng	30
Chimedtseren, E.	33
Chiotan, C.	127
Chistozvonnov, S. B.	116
Chou Yang	36
Chowaniec, W.	70
Chu Thanh Huong	35
Chudov, L. A.	131
Chuiko, V. A.	63
Chung Il-hyong	33
Churakov, V.	7
Chusin, P. I.	136
Chvojka, J.	99
Cianflone, F.	125
Ciganek, M.	106
Cizeron, G.	103
Cizmarik, P.	100
Clausing, P.	133
Clout, Alain	25
Cochery, J. C.	102
Comte, Gilbert	25
Constantin, P.	126
Corradetti, A.	51
Correa da Silva, L. C.	136
Corshkova, T. I.	51
Costake, N.	19
Cretin, J.	120
Cruchaud, A.	65
Csikos-Nagy, Bela	17
Czajkowski, M.	123

- D -

Dadykin, V. P.	50
Dakov, Mako	15
Danelyan, G. G.	72
Daniszewski, Wladyslaw	22
Dantsig, Ye. M.	46
Dao The Tuan	43
Darinskiy, B. M.	93
Dashdemberel, D.	36
Dassuqi, Sami	120
Dayan, Moshe	28

de Vaux Saint Cyr, Ch.	65
Deacu, L.	111
Debaillie, F.	65
Decker, G.	101
Defranoux, J. M.	103
Dekhtyar, I. Ya.	133
Dekhytat, I. Ya.	92
Del Pedro, M.	68
Dement'yeva, Ye. B.	84
Derevyanko, P.	13
Deutsch, C.	134
Dickel, H.	134
Didenko, V. I.	47
Diehl, J.	111
Dienstbier, Z.	124
Dietrich, W.	108
Dimov, Ivan	15
Ding, A.	77
Direktor, B. Ya.	90
Disler, N. N.	52
Djurbabio, Marko	19
Dmitriyev, A. A. —	87
Dmitriyev, V. B.	137
Dmitriyeva, G. N.	98
Dmitriyeva, Ye. N.	58
Do Duong Thai	66
Dobos, Gyorgy	17
Dobretsov, V. N.	138
Dobrev, Asen	16
Dobrushina, S. I.	50
Doi, S.	112
Dokusova, O. K.	47
Dolgikh, L.	9
Donati, E.	111
Dontsova, Ye. P.	73
Doremenko, V.	119
Dorman, L. I.	45
Drace, Dzemaal	43
Draganik, B.	69
Drapal, S.	100
Drapkin, Ye. N.	58
Drescher, G.	105
Drikhel, Kh. V.	119
Drilhon, A.	65
Droge, F.	44
Drozd, J.	70
Druyvesteyn, M. J.	101
Dryagin, P. A.	59
Dt'yshko, V. G.	96
Dubinin, G. N.	98
Dubov, Ye. Ye.	44
Dubovik, A. S.	124
Dudykevich, V. B.	124
Duka, L. A.	61
Dulatov, N.	5
Dumitriu, D.	43

Duong Hong Dat	43
Dushnov, Yu.	117
Dyskin, V.	1
Dzhafarov, Sh. M.	50,63
Dzhashitov, Ye. A.	137
Dzieciolowski, Jerzy	123

- E -

Ebert, R.	99
Eckert, K.	126
Eichhoff, H. J.	76
Eichorn, F.	108
Eisenhut, O.	110
Elfmark, J.	100
Elshout, A. J.	121
Engels, G.	66
Enin, V. I.	118
Erki, Edit	20
Ernst, H.	107
Eroglu, H.	29
Esche, W.	109
Eschler, H.	106
Esslinger, P.	107
Euler, K. J.	127
Exner, E.	111
Eytan, Steve	28

- F -

Fabian, K.	108
Fadeyev, I.	3
Fahidy, Jozsef	17
Fakhretdinov, Z.	7
Falk, Ulrich	66
Farkas, Tibor	121
El-Fassi, Allal	24
Fast, J. D.	75
Favez, B.	88
Fedorenko, N.	2
Fedorenko, N. P.	2
Fedorets, O. L.	86
Fedorov, N. S.	53
Fedorov, V. S.	95
Fedorova, N. K.	51
Fedorovskiy, Yevlampiyevich Leonid	117
Fedoseyeva, L. I.	52
Fedotov, N.	12
Fedyanin, A. I.	97
Fel'dman, I. Kh.	51
Felgner, K.	89
Feygin, M. V.	79
Fiala, J.	100

Fidelle, J. P.	76
Fierla, R.	99
Filatov, V. P.	39
Filatova, A. S.	71
Filippov, A. P.	116
Filonenko, B. A.	99
Finkel', V. M.	94
Finkel'shteyn, A. V.	131
Fischer, H.	88
Fischer, H. J.	121
Fischer, W. A.	104
Fischmeister, H.	107
Fishgoyt, L. L.	127
Fitting, Hans	67
Fiz, W. D.	105
Fjortoft, Hans, J.	69
Flanz, G.	122
Florentin, I.	66
Florent'yev, L.	79
Florescu, M.	18
Flossmann, R.	110
Fonarev, Ye.	7
Fontaine, Y. A.	65
Fontolliet, P. G.	89
Fornical, C.	121
Forster, E.	109
Fournet, G.	101
Frade, G.	103
Franke, E.	82
Frantsis, T. A.	83
Frantzevich, I. N.	92
Frenkel, M. B.	97
Frewer, H.	127
Fridman, Yu. A.	4
Friedel, J.	116
Fuchs, G.	108
Fuentes, Fulvio	36
Fukuyama, T.	113
Funke, P.	109
Furusawa, K.	113

- G -

Gabelov, A. A.	52
Galanin, A.	5
Galanxhi, Resul	20
Galimov, D. G.	93
Galkin, Ye. B.	86
Gallais, R. Y. L.	23
Gal'perin, L. V.	7
Gal'tsova, R. D.	51
Gandjbakhch, D.	66
Gapurov, M.	9, 11
Garbuz, G. I.	12

Garbuzov, V.	3	Gomez, F. R.	115
Garetovskiy, N.	3	Gomozov, L. I.	73
Garnov, V. V.	81, 124	Gomulka, Wladyslaw	21
Garzo, T.	136	Gonschoreki, Dietmar	16
Gascuel, L.	102	Gorbachev, B. N.	130
Gatovskiy, L. M.	4	Gorbatok, N. A.	6
Gaudig, W.	111	Gorelik, A. G.	44
Gaukhman, Z. S.	49	Gorely, I. A. V.	128
Gautier, J.	116	Gorissen, E.	105
Gavrilov, Ye. I.	6	Gorl, E.	104
Gavurina, R. K.	97	Gorokhov, V. A.	84
Gayalas, K. S.	59	Gorsky, F. K.	133
Gayev, I. S.	99	Goryachkin, M.	41
Gayevik, D. T.	95	Goryunova, S. V.	50
Gazit, S.	29	Gottwald, M.	100
Geichenko, V. V.	91, 133	Govorov, A. A.	93
Geier, V. G.	120	Goykhman, Ye. Sh.	125
Gel'd, P. V.	93	Grabart, Fabio	37
Gelig, A. Kh.	45	Grabar-Duvernay, J. B.	65
Gelpi, A.	103	Gradoboyev, V. M.	124
Gel'shteyn, V. I.	63	Graf, L.	110
Generalov, N. A.	130	Grechko, A.	12
Generson, I. G.	96	de Gregoria, G.	123
Gerasimchuk, D. I.	74	Grein, H.	122
Gerasimov, V. I.	128	Grenier, G.	102
Germagnoli, E.	136	Grevtsev, N. V.	128
Gernandez-Moreno, J.	83	Griesseier, H.	134
Gersch, Hans-Ilrich	134	Grigorevskiy, V. M.	137
Gershberg, A. Ye.	86	Grigorovich, V. K.	73
Gertsriken, S. D.	92, 127	Grisollet, J.	126
	132	Grobe, Karl	25
Giesecke, J.	122	Grobner, H.	91
Gillberg, J.	105	Groisman, M. Ya.	58
Ginzburg, S. A.	87	Grolmusz, Vince	139
Ginzburg, V. L.	44	Gromska, J.	69
Girsa, I. I.	60	De Groot, W.	134
Glazov, V. M.	95	Grube, G.	110
Glazunov, S. G.	92	Grumbach, M.	102
Glinchuk, M. D.	132	Gruzin, P. L.	93, 98
Gobarov, O. G.	6	Gruzinov, V. M.	81
Goben, H.	16	Gryazin, G. N.	86
Goecke, E.	91	Guddas, K.	104
Gol'dberg, A. A.	116	Gudkov, V. I.	8
Gol'dman, I. Ya.	85	Gudovich, Z. M.	80
Gol'dshteyn, A. B.	71	Guerin, F.	103
Gol'dshtik, M. A.	128	Guentler, M.	139
Golitsyn, G. S.	44	Guertler, W.	139
Goll, K. H.	66	Guillet, L.	102, 103
Golovachik, V. T.	126	Guilmet, D.	66
Golovan, V. A.	84	Guinet, M.	45
Golovkina, N. Ye.	73	Guiraldenq, P.	120
Golovyashkina, L. V.	87	Gulyayeva, T. I.	7
Golub, L.	7	Gunthand, Hs. H.	76
Golubev, Ye. K.	126	Gurbuchev, Ivan	43
Gomazkov, O. A.	47	Gurvits, Ye. A.	84

Guseinov, G. A.	52
Gusev, A. A.	99
Gusev, N.	41
Gusev, N. A.	81
Gushchin, V.	118
Guske, Hubertus	22
Gutierrez Vertti, Miguel	38
Gvishiani, D. M.	39
Gyorgy, L.	123

- H -

Ha Huy Giap	34
Ha Thi Que	34
Haas, J.	115
Haastert, H. P.	110
Hadamek, V.	99
Hagiwara, I.	112
Hall, Gus	9
Hako, Halusi,	22
Hancl, J.	100
Hannover, H. O.	122
Hanocq, M.	76
Hansson, J.	76
Hardmark, R.	41
Haring, W.	18
al-Harithi, Naji Sabri	28
Harmel, Claude	23
Hartl, N.	100
Hartlieb, K.	48
Hasking	117
Hatano, T.	114
Hauffe, K.	134
Haul, R.	77
Hayashi Nobuta	69
Heahl, W. D.	104
Hecking, G.	125
Hegi, F.	68
Hein, A.	107
Heitz, G.	103
Held, H. D.	122
Held, Manfred	76
Hencky, K.	16
Henglein, A.	77
Henjes, G.	122
Herbert, A.	65
Herbsleb, G.	88
Hernandez Parker, Luis	37
Herold, H.	139
Herrmann, W. P.	66
Hertwig, Oscar	67
Heyden, Guenter	20
Hidveggy, J.	101

Higuti, M.	114
Hijazi, Sayyid	27
Hildebrant, W.	122
Hils, J.	66
Hirota, M.	89
Hisamatsu, Y.	112
Hlineny, J.	99
Ho chi Minh	34
Hoang Linh	31
Hoang Manh Tuan	32
Hoang Minh	124
Hoang Quoc Viet	34
Hoang Quoc Viet	36
Hoeg S. U. W.	134
Hofstatter, A.	91
Holleck, H.	77
Hollstein, M.	135
Hoppe, H.	109
Horhoy, D.	33
Horvat, Vladislav	19
Hsueh T'ing-yao	82
Hubert, Maria	17
Hujber, Endre	89
Hummel, H.	76
Hummitzsch, W.	110
Hurtado, J.	88
Husson, G.	101
Hutzel, O.	88
Hwang Yong-sop	31

- I -

Ibaraki, M.	112
Ifft, Ye.	130
Ilarionov, S.	7
Il'ichev, V. D.	47
Iliyev, Lyubomir	139
Il'yenko, A. I.	62
Imamaliyev, A. S.	50
Inglot, J.	115
Ionescu, C.	19
Iovlev, A.	13
Isao Hanyu	68
Isarankura, Andhi P.	71
Ishchenko, I. I.	130
Ishiguro, M.	114
Ismailov, R. G.	71
Iurevich, G. V.	61
Ivanchenko, N.	42
Ivankov, V. N.	59
Ivanov, A. S.	40
Ivanov, K. P.	117
Ivanov, L. I.	131
Ivanov, O. A.	124
Ivanov, R.	99

Ivanov, T. F.	129
Ivanova, M. N.	56
Ivanova, O. M.	71
Ivanova, Ye. I.	79
Ivanova, Ye. N.	80
Izvekov, V. I.	128
Izyumov, M. A.	41

- J -

Jackuliak, Q.	101
Jacoby, G.	135
Jaegle, J.	121
Janci, Ladislav	16
Janik, A.	64
Janouslpva, M.	64
Jariuchi, Y.	78
Javelle, J. F.	91
Jawadi, Ali Asghar	
Haj Said	29
Jen Yun-wu	82
Jensen, S.	139
Joachim, S.	18
Johansson, Nils	70
Jon, R.	102
Jost, W.	78
Jung, H.	127

- K -

Kabasov, P.	42
Kachalov, N.	2
Kaessaris, N. S.	122
Kakurin, L. I.	62
Kalashnikov, K. Y.	63
Kalashnikov, N. F.	93
Kalganov, M. P.	42
Kalinina, M. V.	51
Kalinovich, D. F.	133
Kallergis, M.	137
Kalnin', M. M.	97,98
Kalt, Hans	23
Kamainin, I.	137
Kamenova, Ana	16
Kamensky, R.	99,101
Kammerhofer, E.	106
Kamyshov, V.	8
Kang Kun-won	32
Kantor, B. Ya.	116
Kapitonova, Yu. V.	83
Kapo, Hysni	20
Kapustin, L.	90
Karabekov, V.	1
Karabutov, V. G.	128
Karakotskiy, Ye. D.	53

Karayev, D.	11
Karev, V. N.	96
Karklit, A. K.	96
Karlivan, V. P.	97
Karpikov, A.	12
Kartsev, V. P.	84
Kasatkin, V.	15
Katashkin, V. I.	85
Katkovskiy, B. S.	62
Kats, A. L.	45
Katsobashvili, Ya. R.	74
Kaufma, O. I.	47
Kavalerova, L. A.	92
Kavlova, J.	64
Kayryalis, A.	7
Kazarnovsky, D. S.	93
Kebin, I.	10
Kedrinskiy, V. K.	132
Kekhtyar, I. Ya.	132
Kessler, F. R.	135
Kessler, Heinz	20
Kharalambopoulos, Str.	28
Kharkavi, Zahi	29
Kharutyunyan, B. D.	50
Khavkin, V. A.	72
Khazov, Yu. K.	60
Khilyuk, F.	3
Khokhlov, A. S.	46
Khomyakov, K. P.	62
Khomyakov, N. M.	118
Khrapchenko, S. F.	84
Khromov, L. I.	86
Khrulev, S.	1
Khudayberdyev, N.	5
Khzmalyan, D. M.	41
Kidek, M.	100
Kim Pyong-ho	33
Kim Sa-il	69
Kim Tok-chun	31
Kinoshita, M.	114
Kiratani, T.	114
Kiriyanaki, N. V.	124
Kirsch, A.	105
Kislev, S. S.	84
Kishchuk, A. I.	6
Kishinevskiy, V. B.	73
Kleer, Jerzy	17
Klepatskiy, P. M.	71
Klepikova, A. N.	86
Klimes, B.	65
Klimov, A. N.	47
Klimov, V. V.	118
Klochkova, A. I.	51
Klyucharev, A. P.	96
Klyuyev, M. M.	92

Knizhe, B.	57	Korotin, B. S.	97
Knyazev, K.	2	Korovina, V. M.	60
Ko Son'il	32	Korsunskiy, V. M.	85
Kobozev, A. A.	85	Korytkowski, B.	123
Kobrynski, M.	41	Kos, Egon	20
Koc, S.	75	Kosarev, Yu.	87
Kochendorfer, A.	77	Kosev, Dimitur	16
Kochetkov, L. A.	131	Koshelva, V. Yu.	93
Kochetkova, T. A.	54	Koshlyakov, V. M.	125
Kochetkova, V. A.	46	Kossakowski, J.	69
Kocich, J.	101	Kostadinov, Georgi	15
Kocks, F.	101	Koster, W.	104
Kodola, D.	13	Kostov, Kosta	15
Koenig, P.	22	Kosyachenko, G.	3
Koenig, W.	105	Kotetskiy, V. V.	50
Kogan, R. L.	98	Kotlyarevskaya, N. V.	60
Koganer, S. Ye.	86	Koval'chuk, G. K.	53
Kogteva, Ye. P.	63	Kovalenko, P. P.	58
Kohler, M.	76	Kovalev, A.	3
Kohlhaas, E.	104	Koval'skiy, G.	95
Koiro, M. A.	52	Kozlov, G. I.	130
Kojima, K.	114	Kozlovskiy, S. M.	86
Kokhanovskaya, T. M.	46	Kozub, N.	107
Kokhonov, F. L.	6	Kozub, Yu. I.	98
Kolbasov, O.	80	Krabbe, G.	67
Kolesnikov, G. S.	74	Krehl, A.	108
Kolesnikova, L. I.	63	Krasenskiy, Viktor	
Koltik, Ye. D.	86	Yevgen'yevich	117
Komers, Ye. G.	87	Krasovskiy, N. N.	116
Konchin, V. V.	62	Krassowska, Teresa	69
Kondo, A.	112	Krauss, Krzysztof	16
Kondraskina, K. I.	53	Krautmacher, H.	108
Konig, G.	108	Kravchenko, S. A.	86
Konochkin, V. G.	131	Kravchinskiy, R. D.	58
Kononov, K. I.	118	Krch, V.	64
Kononov, V. N.	128	Krechmer, V. G.	93
Kononova, M. M.	80	Kreidl, I.	75
Konovalov, L.	2	Krentsis, R. P.	117
Konovalov, S. M.	58	Kreytser, V. L.	86
Konovalov, S. N.	133	Krichevskiy, R. Ye.	116
Konovalov, V. F.	86	Krishtal, M. A.	130
Konstantinov, A. S.	48	Krivosheyev, M. I.	86
Konstantinov, K. G.	62	Krode, N. V.	82
Konstantinov, V.	4	Kroeger, Herbert	20
Kootz, T.	109	Kron, H.	105
Kopanev, N.	42	Krotkov, F. G.	46
Kopp, R.	109	Krovoglaz, M. A.	92
Kopylov, V. Ye.	117	Krovosheina, N. P.	64
Korablev, Yu.	11	Krueger, F.	67
Kordzinski, Q.	41	Krug, H.	88
Kormanovskaya, G. N.	71	Krupcik, J.	66
Korneyeva, L. A.	60	Krushinskaya, N. L.	52
Korol', V.	14	Krustanov, Lyubomir	139
Korol'kov, A.	138	Kryмова, A. I.	73
Koromelli, T. V.	51	Kryuchkova, M. I.	58

Kryzhanovskiy, S. G.	63
Krzyzanowski, J.	90
Ksembayeva, G. K.	52
Ktitarev, N. I.	90
Ku Hung-k'an	82
Kubas, Z.	115
Kubashchewski, O.	107
Kubasova, N. A.	131
Kubon, K.	100
Kucheruk, V. V.	48
Kuchkin, S. A.	8
Kuczynski, W.	79
Kudel'kin, V. P.	94
Kudryavtsev, V. L.	39
Kufel, J. W.	83
Kuklyak, N. L.	128
Kuksa, V. I.	80
Kuleshov, P.	14
Kulikova, Ye. I.	51
Kuliyev, A. M.	71
Kuneka, K.	78
Kuneva, Velichka	16
Kumina, L. A.	51
Kunioka, K.	113
Kunz, A.	88
Kuprovskiy, B. B.	95
Kurazhskovskaya, T.N.	56
Kurbayev, A.	90
Kurilenko, A. I.	72
Kurotchenko, V. S.	4
Kurtmullayev, R. Kh.	131
Kurushin, Y. N.	133
Kusakin, N. D.	98
Kusakov, M. M.	131
Kusamichi, H.	78
Kushner, Kh. F.	57
Kusuno, K.	113
Kutaleladze, S. S.	128
Kutakhov, P.	11,12
Kutidze, R.	14
Kuz'kin, V. G.	137
Kuzin, B. S.	54
Kuzmanov, Aleksej	19
Kuz'menko, P. P.	132,133
Kuz'min, A. N.	61
Kuz'mina, Z. M.	131
Kuznetsov, V. F.	126
Kuznetsov, V. G.	129
Kybranz, H.	21
Kydryavtseva, S. K.	45

- L -

Labecki, W.	123
Laboureau, Jacques	25
Lagutkin, Vladimir Martinovich	5
Laissus, J.	134
Lalayants, A. M.	4
Lamberz, Walter	20
al-Lami, Majid	30
Langhammer, H. J.	108
Lapin, Yu. Ye.	61
Larikov, L. N.	132
Larikova, G. A.	51
Larrue, H.	88
Lashin, 'Abd al-'Azim	30
Laufhutte, D. W.	125
Lautervach, D.	122
Lavrik, S. S.	63
Lawecka, M.	115
Layner, D. I.	98
Lazutkin, Ye.	7
Le Thanh Nghi	31
Le Van Ban	44
Lebedev, T. A.	96
Lebedev, V. B.	81
Lebedev, Ye. A.	124
Lebedeva, N. B.	85
Legar, L.	66
Legler, W.	116
Leibson, L. G.	62
Lekhnikskiy, S. G.	117
Lel', R. V.	95
Lemeshchuk, P. K.	87
Lenard, Pal	139
Lendel, A. I.	127
Lengyel, Z. L.	68
Leriche, Rene	66
Lesnik, A. G.	92
Lestrat, L.	102
Lesyukov, V. A.	86
Leszczynski, J.	116
Levanidova, I. M.	49
Levasseur, J.	75
Levin, A.	2
Levinson, S. Z.	129
Levinter, M. Ye.	74
Levitov, M. M.	46
Levy, V.	134
Lewenstein, S.	18

Lezhepekov, V.	11
Liebel, Xeno	136
Lievens, C.	41
Lifshits, Yu. B.	132
Limanskiy, V. V.	62
Liron, J. P.	120
Liska, O.	66
Lisovskaya, Ye. V.	50
Liutsarev, S. V.	44
Livshits, B. G.	92, 93
Ljungberg, Olle	70
Lobantsev, S.	7
Lobzov, N. N.	119
Loginova, M. M.	52, 46
	64
Logunov, A.	130
Logunov, B. F.	44
Lokarev, V. I.	137
Lomake, P. F.	92
Loorz, W.	108
Loser, H.	106
Loseva, A. L.	64
Lotberg, Sigurd	23
Lotti, Carlo	83
Lozinskiy, M. G.	99
Lozovoy, Yu. S.	120
Lubitsh, Ruth	29
Lubowiecki, T.	18
Ludewig, F.	106
Luferov, V. P.	54, 56
Luferova, L. A.	56
Lukashenko, V. I.	133
Lukashevich, S. I.	6
Lukyanchenko, S.	5
Luk'yanenko, V. I.	62
Lutsenko, V. N.	45
L'vov, B. V.	44
Lyadskiy, V. B.	97
Lyshko, G. P.	137
Lyubarskiy, Yu. Ya.	87
Lyubov, B. Ya.	128
Lyushina, A. F.	129

- M -

Mackowsky, M. T.	106
Mader, K.	111
Maekawa, S.	114
Magaril, R. Z.	95
Magyar, I.	68
Maik, Z.	89
Majdic, A.	105
Majer, J.	75
Makarov, I. M.	41
Makarov, O. Ye.	58
Makarova, I. P.	51
Makrushin, A. V.	55
Malanov, M. D.	72
Malczewski, A.	70
Maloletnev, V.	12
Malygin, S. S.	120
Malyukina, G. A.	62
Malyushin, N. A.	137
Malyuta, Yu. M.	126
Mamchenko, V. N.	119
Mamulyan, R. Kh.	62
Manakov, M. N.	72
Mandry, P.	103
Maniesse, Bernardin	26
Mankin, O. G.	131
Mansuy, D.	102
Mao Han-li	82
Marchak, I. S.	128
Marchesini, L.	112
Mareyn, R. L.	86
Margarilov, N.	64
Marian, Teodor	43
Marie, R.	66
Markicevic, A.	70
Markov, N. M.	90
Markovets, V.	41
Markovic, T.	77
Marrero, Juan	37
Marshakov, I. K.	92
Marti, Yu. Yu.	52
Martin, E.	105
Martin, W.	109
Martung, G.	125
Marushchak, Yu.	6
Masagutov, R. M.	72
Masing, G.	76
Maslyanskiy, G. N.	72
Masson, A.	104
Masuko, N.	112
Masumoto, H.	113
Masumoto, I.	115
Matawi,	
'Abd al-Wahhab	26

Mateev, Bulcho	15
Matlin, A. G.	119
Matsuzawa, S.	112
Matula, E.	115
Matysina, Z. A.	133
Maybaum, H. R.	106
Mayier, R.	59
Mayr, G.	78
Mayransayev, M. U.	97
Medici,	37
Medvedeva, N. A.	97
Meeks, F.	7
Megevand, R.	63
Megrelishvili, I. A.	131
Le Mehaute, B.	82
Meiss, Dietrich	21
Meleshina, M. V.	85
Mel'nikov, V. N.	124
Melyukov, A. N.	58
Mencarelli, E.	104
Mentzen, Bernard	75
Mercier, M. A.	101
Merenishchev, N.	1
Meshkauskas, K.	4
Meshkov, A. N.	52
Metlev, A. A.	128
Meysenberg, C. M. v.	110
Meysson, N.	103
Mezhov-Deglin, L.	130
Micheel, P.	106
Michel, W.	109
Miculescu, A.	43
Mikashima, H.	114
Mikhaylov, V. A.	49
Mikhaylov, V. S.	118
Mikhaylov-Teplov,	
N. N.	86
Mikhaylova, N.	7
Mikheyev, V. P.	55
Mikolov, Iv.	126
Miljanic, Dusan	21
Miller, M.	123
Milovideva, N. Yu.	49
Mil'shteyn, V. V.	62
Mima, G.	112
Mina, M. V.	60
Minh Tranh	34
Minkin, N.	12
Mirchink, M. F.	79
Mirkin, I. L.	95
Mironov, K. E.	80
Mironov, Yu. M.	92
Miroshnichenko, M. P.	49
Misiak, Marek	18
Mitani, H.	78

Mitel'man, B.	4
Mitin, P.	10
Mitrega, Jan	18
Mitropolskiy, V. I.	54
Mitropol'skiy, V. I.	55
Miyagawa, K.	113
Mizuta, M.	78
Mizyurin, S. R.	84
Mobius, H. H.	89
Moc, N.	17
Modes, D.	134
Modl, E. K.	106
Moedder, O.	107
Moinereau, P.	88
Moiseyev, P. I.	85
Molchanov, S. A.	116
Monakov, A. V.	54
Moncilovic, M.	89
Monma, K.	78
Moole, L.	76
Morae, Vasile	22
Moravek, J.	133
Moravek, O.	100, 101
Morcinek, P.	100
Mordukhai-Boltovskoy, F. O.	55
Moreau, L.	75
Morgulis, N. D.	133
Morita, A.	114
Moritz, H.	109
Morozov, A. A.	85
Morozov, S. F.	116
Morozov, V.	12
Mos, V.	79
Moser, C. A.	22
Moskalenko, G. V.	86
Mousnier, Jehan	82
Mrowec, St.	136
Muchnik, G. F.	128
Mueller, Gerhard, F.	16
Muhri, Franz	23
Mukhina, N. A.	51
Mullageleyev, V. G.	98
Munch, W.	88
Munoz del Corral, F.	115
Murayama, S.	113
Musi, Rudolf	22
Muyongo, Mishake	25
Myasnikov, A. L.	51
Myasnikov, Ya.	9
Myrtsymov, A. F.	39
Myslivec, T.	99

- N -

Nadzhakov, Georgi	126
Nafi', Ibrahim	26
Nagano, Y.	113
Naishtein, S. Ya.	50
Najib, Mustafa	27
Nakamura, H.	115
Nakhookin, N. G.	132
Nalecz-Jawecki, Andrzej	17
Nam In-hyok	32
Naonori, Ishiwata	68
Narovlyanskiy, G. Ya.	44
Narutaki, R.	114
Nasriddinova, Ya. S.	1
Naudin, P.	121
Naudon, Carlos	38
Navara, Pavel	133
Nazarenko, Yu. I.	52
Nazarov, M.	6
Nazykin, A. D.	63
Nechvalenko, S. P.	48
Nedeljkovic, L.	115
Nedeshovenko, V. A.	118
Nedev, Dragin	16
Negroni, R.	70
Nekrasov, A. M.	90
Nekrasov, O.	5
Nekrasov, V. V.	61
Nelyubin, B. V.	72
Nemec, J.	101
Nemenyi, Istvan	17
Nemtsev, V. P.	132
Neplokhov, Ye. M.	84
Neporuzhniy, P. S.	90
Nernst, W.	135
Nerubashchenko, V. V.	73
Neugodova, V. N.	96
Neumann, G. M.	111
Neumann, K.	78
Neuymin, G. G.	125
Neyman, S. S.	125
Ngo, Han	31
Nguyen Dinh Huong	71
Nguyen Hoai	34
Nguyen Nham	43

Nguyen Ngoc Cu	34
Nguyen Trang Phi	71
Nguyen Van Kinh	39
Nicodemi, W.	111
Nicolas, J.	76
Nielson, H.	131
Nikanorov, Yu. I.	61
Nikichine, A. S.	66
Nikitin, V. N.	57
Nikolayev, A. B.	11
Nikolayev, A. F.	73
Nikolayev, K.	10
Nikoliukin, N. I.	61
Nikol'skiy, G. V.	59,60
Niksic, Mirko	91
Nil, Zakariya	27
Nilles, P.	108
Nilsson, Goran	70
Ninkovic, Jovo	21
Nishanov, R.	10
Nishida, K.	113,114
Nivikov, G. G.	60
Nobile, Aldo	29
Norachin, Buntham	83
Norman, T. E.	107
Norozinets, B. V.	87
Noskov, A. A.	42
Novak, Vladimir	65
Novichkova, L. M.	74
Novikov, M.	12
Novikov, V.	5
Novotny, Z.	100
Nowicki, Ryszard	69
Numura, S.	127
Nurnberg, W.	89

- 0 -

Obake, K.	112
Obalenski, W.	87
Obichkin, G.	10
Obraz, J.	101
Ochiai Akira	68
Odess, V. I.	4
Oeters, F.	104,107
Oetker, R.	121
Offroy, C.	103
Oggero, J.	111
Ogorodova, I. K.	85
Oguchi, A.	112
Okhotin, A. S.	95
Oki, Y.	113
Okolo-Kulak, S.	139
Oksiyuk, O. P.	49

Okubo, N.	114
Ol'khovskaya, O.	2
Olkhovsky, V.	125
Ol'sevich, Yu.	8
Ol'shevskiy, O. V.	85
Olszewski, Z.	90
Olshowski, Stefan	21
Onishi, I.	115
Opata-Kubinska, Z.	69
Opatskiy, L.	5
Opris, Iosif	123
Orlik, M.	101
Orlov, V.	42
Orlov, Ya.	6
Ornig, H.	120
Orochko, D. I.	72,129
Ortega, M.	75
Orths, K.	107
Osminina, M.	2
Ossa, Manuel	38
Ostapenko, V. V.	126
Ottolina, C.	70
Ovcharov, O. P.	48
Ovsyannikov, A. I.	42

- P -

Pak Hui-sok	32
Pakhlin, I.	9
Paladina, J.	17
Palcos, M. C.	127
Panarin, Ye. F.	47
Panasenko, B. A.	118
Panferova, N. Ye.	48
Panin, V. I.	52
Panis, L. M.	127
Pankov, V. I.	119
Panov, D. A.	60
Papovyan, A.	1

Parmakov, Dimitur	42
Partskhalava, S. E.	50
Paskalev, Z.	126
Paskalis, P.	27
Patary, J.	91
Pauly, H.	135
Pavel, Stefan	18
Pavlov, B. M.	131
Pavlov, D. S.	61
Pavlovic, Grujica	91
Pavlovskiy, V.	29
Pavlovskiy, Yu. N.	129
Pawelsi, O.	104
Pawelski, O.	109

Pawlenko, St.	78	Podstrigach, Y. S.	133
Pchelina, Z. M.	63	Pohl, M.	88
Pean, M.	65	Pokhvisnev, A. N.	93
Pechuro, N. S.	74	Polak, K.	101
Pederson, F. B.	122	Poletayeva, T. I.	72
Peev, Yosif	16	Polonnikov, D. Ye.	85
Pejakov, A.	123	Poloujadoff, M.	106
Pekarskiy, L.	5	Polovina, I. P.	45
Peker, L. K.	126	Poltoracka, J.	69
Pekikan, Jiri	20	Polyanskiy, D.	10
Pelykh, V. M.	8	Pomanskiy, A. A.	126
Penczek, P.	79	Ponomareko, Ye. P.	99
Penin, V. V.	81	Ponomarenko, V. A.	74
Pentek, I.	111	Ponomarenko, Ye. P.	94
Perevedenstev, V.	14	Ponte, M.	134
Perevozchikov, Yu.	4	Popara, N.	126
Permitin, Yu. Ye.	62	Popel, S. I.	93, 94
Pertermann, K.	121	Popescu, Vasile	18
Pertseva-Ostroumova,		Popiel, Jozef	69
T. A.	56	Popov, Konstantin	15
Pertsov, L. A.	50	Popov, L. A.	52
Peto, Marton	111	Popov, V.	7
Petros, J.	101	Popov, V. A.	85
Petrova, G. P.	130	Popova, Stefka	20
Petrovic, D.	19	Popovici, Stefan	18
Petrushevskiy,	63	Poriyetis, Ya.	14
Petrushin, I. P.	125	Postnikov, I. M.	90
Petukhov, A. G.	58	Povolotskiy, D. Ya.	93
Pham Thanh	36	Pradzynski, B.	18, 123
Philippe, J.	134	Pravdin, L. F.	42
Phothipak, Prasoet	83	Pravdyuk, N. F.	129
Phuong Dinh	35	Pravoverov, M. L.	128
Phuong Lan	36	Predel, G.	16
Piliyev, T. N.	72	Privarnikov, O. A.	41
Pillar, L.	17	Privezentsev, Yu.	138
Pimenov, A. R.	95	Profeta, A.	70
Pirozhnikov, P. L.	59	Progrushchenko, A. V.	133
Pisarenko, N. F.	45	Prokhorov, V.	7
Pisarev, A. F.	6	Prokof'yev, V. K.	135
Pisarev, A. I.	51	Prokopovich, N. N.	48
Piskor, J.	99	Prosvironov, Ye. S.	57
Piskunov, V. A.	137	Protas, I. R.	124
Pita Astudillo,		Protasov, V.	53
Felix	37	Prouza, M.	100
Pivovarev, A. T.	72	Provotorov, A.	117
Plakunova, V. G.	47	P'u Ming-Tung	32
Plateau, J.	76	Pugno, A.	111
Pliss, G. B.	50	Puncochar, Z.	99
Pluhar, J.	133	Punga, V. Ya.	10
Plyutinskiy, V. I.	127	Pustynskiy, I. N.	86
Pochmarski, L.	106		
Pocta, J.	100		
Poddubnaya, T. L.	54		
Podshivalenko, P.	3		

- R -

Rabih, Turki	26
Rabinovich, V. A.	130
Rabinovich, Z. L.	83
Radeloff, C.	110
Radicella, R.	127
Radovan, P.	21
Raicevic, Miladin	19
Raitviyir, A. G.	52
Rajon, M. C.	104
Rakhmankulov, V. Z.	41
Rakhmatullayev, A. R.	58
Rako, Kulusi	22
Rashidov, Sh.	9
Rashidov, Sharaf	9
Rassudov, N. S.	90
Rathert, P.	67
Ratnikov, A.	11
Raviv, Y.	29
Rechlin, O.	66
Remm, Kh. Ya.	48, 53
Renner, U.	138
Repenko, A.	3
Reshetnikov, Yu. S.	60
Resin, V. I.	86
Revazyan, A. A.	87
Rezigui, Mazouz	28
Reznikov, G. B.	84
Richter, W.	21
Rinaldi, F.	111
Risser, R.	109
Rist, A.	103
Riv'er, I. K.	55
Riviere, Claude	26
Robiller, G.	107
Rochas, R.	102
Rocquet, R.	102
Rodes, R. C.	79
Rodet, E.	76
Rodin, A. M.	96
Rodionov, P. A.	11
Rodionov, V. N.	80
Rodova, R. A.	55
Rodrigues Herrera, Lorenzo	37
Roepert, W.	125
Roesch, L.	103
Rohland, B.	89
Romanov, V. P.	86
Romanov, V. V.	95
Romashov, A. N.	81
Romvaru, Ferenc	17
Rosendahl, C. H.	115
Roshchin, V. Ye.	94

Roshi, Likurg	15
Rosival, L.	65
Roslyakov, G. S.	131
Rosselevich, I. A.	86
Rossi, G.	111
Rossler, F.	134
Rotmistrov, M. M.	64
Rozenberg, B. A.	74
Rozenshteyn, M. M.	118
Rozhdenstvensky, A. V.	45
Rubtsov, I. A.	63
Rudat, K.	67
Rukhlov, F. N.	61
Rulev, B. G.	81
Rumpf, G.	66
Ruzinov, L. P.	98
Ryabov, Ya.	2
Rybakova, Ye. A.	90
Rybal'chenko, P.	10
Rybanin, S. S.	74
Ryzhov, O. S.	132

- S -

Saarinen, Aarne	23
al-Saba'i, Amin	27
Sabayev, G. N.	86
Sabirov, Sh. M.	92
Sabitova, V. F.	95
Sadmi, R.	25
as-Sa'dawi, Sahayl	26
Sakairi, S.	112
Sakaki, T.	113
Sakamoto, Y.	113
Salekhova, L. P.	60
Salgues, F.	88
Salih, 'Ali	30
Salim al-Harawi, 'Abd as-Sami	30
Samkov, M. A.	6
Samsonov, G. V.	99
Sandomirsky, V. L.	133
Sanina, Yu. P.	63
Sanz, G.	102
Sapozhnikov, D. G.	80
Saprin, A. N.	48
Sara, J.	74
Sarkisov, M. A.	90
Sarrak, V. A.	96
Sarzea, Ilie	21
Satake, J.	112
Satarin, V. I.	97
Sautner, K.	105

Savich, V. P.	48	Seryskov, I.	8
Savinskiy, M.	13	Sevast'yanov, N. P.	138
Savvayitova, K. A.	59	Severtsova, S. A.	50
al-Sayyid, Jalal	27	Shalamberidze, O. P.	50
Scarinci, G.	112	Shanchenko, I.	2
Schaft, Erwin	23	Shapiro, A. P.	59
Schauwinhold, D.	109	Shaposhnikov, Ye. N.	118
Scheibe, M.	107	Shapovalova, I. M.	49
Scheidig, K.	99	Shashin, V. S.	5
Scheidig, F.	104	Shashuto, M.	12
Scheil, E.	110	Shchagin, V. V.	137
Schenck, H.	109	Shchapova, T. F.	57
Schenck, R.	77	Shchebun'yayev, G. F.	8
Scherrer, S.	76	Shchedrin, M. B.	84
Schiller, C.	134	Shekhanova, I. A.	62
Schlag, Albert	82	Shelamov, N.	90
Schmeidel, H.	109	Shestopalov, I. I.	96
Schmidt, Gerhard	16	Shevchenko, V.	2
Schmidt, Peter	67	Shevelev, A. G.	116
Schmidt, W.	105	Sheyanova, Ye. V.	99
Schmidtman, E.	105	Shif, I. G.	53
Schmieder, Helmut	77	Shifrin, K. S.	125
Schmitt-v. Schubert,		Shigaru Kimura	64
Barbara	135	Shigemo, A.	114
Schmutzler, Olaf	17	Shigeo Inoue	69
Schneider, Jan	20	ash-Shihabi, Sadiq	64
Schnittler, Ch.	136	Shikhshabekov, M. M.	59
Schnitzer, W. A.	111	Shilin, B. V.	81
Schobesch, O.	70	Shillinger, Yu. I.	63
Schoffmann, E.	109	Shilova, A. I.	55, 56
Schroder, H.	88	Shimizu, H. H.	78
Schroder, Roland	67	Shimokawa, Y.	114
Schubert, A.	67	Shinoda, T.	114
Schuler, R.	121	Shinyayev, A. Ya.	91, 92
Schultze, O.	82		128
Schulze, G.	108	Shiobara, K.	114
Schulze, H.	87	Shiro, K.	114
Schuster, H.	105	Shiryayev, G. V.	72
Schwarz-Bergkamf, E.	106	Shishkina, O. V.	81
Schwebel, Reiner	121	Shishkova, Ye. V.	53
Schweins, B.	121	Shkhvatsabaya, I. K.	47
Schwiete, H. E.	104	Shklovskiy, B. I.	131
Sedunov, Yu. S.	45	Shkonde, Ye. I.	41
Seith, W.	110	Shkuro, A. M.	7
Selifonov, W. Ya.	120	Shlipchenko, Z. S.	119
Seling, A.	67	Shmukler, B. I.	90
Semenov, I. M.	118	Shopov, Vulkan	15
Semenov, V. P.	95	Shtegman, B. K.	53, 54
Semenova, L. M.	54	Shtennikov, Yu.	41
Semina, N.	119	Shternov, A.	6
Senin, V. N.	73	Shtokman, V. B.	79
Serbinovskiy, G. B.	6	Shu, H. L.	68
Serebryanskiy, F. Z.	71	Shubnikov, D. A.	58
Sergeyev, S. S.	4	Shuitiro Ono	79
Serobaba, I. I.	59	Shupakin, V.	119

Shust, K. V.	57	Solopov, A. V.	80
Shustov, A. P.	52	Soltysik, G.	115
Shvetsov, V. A.	95	Solukhin, R. I.	132
Siba'i, Amin	27	Solyanick, G. A.	47
al-Siba'i, Amin	28	Soma, H.	114
Sicha, F.	101	Someno, M.	113
Sidorenko, M. F.	94	Son, P.	78
Sidorov, N. P.	90	Sonnino, C. B.	103
Siefer, W.	107	Soroker, V.	99
Siemenson, Von H.	67	Sorokin, Yu. I.	54, 55, 56, 60
Siergert, R.	68		
Sikl, D.	68	Soskocil, J.	64
Silayev, V.	7	Spillner, F.	77
Silva Luvecce, Jorge	38	Spiron, Yu. L.	74
Simkin, G. N.	47	Spivakovskiy, A. O.	117
Simonel, J.	133	Sporn, A.	70
Simonov, V. I.	94	Staib, C.	103
Simzen, M.	2	Stanichev, D. I.	97
Sinel'nikov, V. Ye.	49	Stankowski, Stanislaw	17
Sirak, Ya. M.	92	Stark, B. V.	71
Sirota, N. N.	71	Stasenkova, K. P.	54
Siva'i, Amin	27	Stavs'ka, S. S.	64
Sivers, V. N.	133	Stengel, H.	106, 121
Sivov, A. V.	96	Stepakov, V. I.	11
Sklyarevich, A. N.	138	Stepanov, A. Ye.	84
Sleptsov, M. M.	57	Stepunina, S.	13
Slin'ko, M. G.	129	Stiebler, M.	88
Slonim, A. D.	48	Stolz, W.	127
Smekal, A.	77	Stonner, A.	120
Smirnov, A.	3	Stoph, Willi	20
Smirnov, N.	1	Straesser, M.	109
Smirnov, N. N.	55	Strak, Michal	21
Smirnov, Yu. P.	53	Stranski, I. N.	135
Smirov, M. S.	128	Stransky, K.	101
Smorodinov, A. N.	87	Straub, J.	75
Snechkus, A.	9	Straumanis, M.	135, 136
Sobel'man, I. I.	129	Stressburger, C.	107
Socarras, Jose		Striegler, W.	122
Francisco	39	Stroganov, A. I.	94
Socket, H. G.	106	Strybel, J.	18
Soeder, Guenter	20	Strzyzewski, W.	17
Soeno, K.	112	Studenyak, P.	3
Soidl, D.	41	Sudarev, M.	8
Sokolov, A. V.	41	Sukharev, V. V.	94
Sokolov, F. I.	117	Sukhomlinov, P.	80
Sokolov, N. A.	130	Suprunov, A. T.	49
Sokolov, O. A.	80	Surikova, Ye. I.	51
Sokolov, V. F.	87	Sushkov, V.	13
Sokolov, Ye. Ya.	90	Sutra, G.	75
Soldatov, V. M.	73	Suyarov, D. I.	95
Soldatov, V. V.	117	Suzdal'tseva, V.	3
Solntsev, S. S.	98	Suzuki, A.	112
Solodovnikov, V.	25	Suzuki, H.	114
Solomenko, I. I.	91	Svyatogorov, A. A.	137
Solomin, P. S.	131	Szekely, T.	136

Szewczyk, Jerzy	89
Szhevaga, I. I.	127
Szymanski, St.	18

- T -

Tabata, Tadashi	123
Tada, T.	113
Tadic, Dobrosav	43
Tagirov, R. K.	129
Taibah, Mustafa	27
Tajze, L.	100
Takagi, T.	78
at-Tamimi, Shihab	26
Tammann, G.	77, 110
Tamura, I.	113
Tanaka, E.	112
Tanaka, R.	114
Tananov, A. I.	99
Tanthawutho, Athon	31
Tantsura, A.	125
Tantsura, A. A.	125
Tarasevich, M. N.	52
Tarasov, A. I.	74
Taromzhenina, V. A.	45
Tashmukhamedov, B. A.	128
Tavadze, F. N.	95
Al-Tawir, Ibrahim	24
Teitelboim, Volodia	38
Tejning, Stig	70
Telenga, N. A.	53
Telenin, G. F.	131
Telkova, L. P.	57
Terekhova, V. F.	98
Tereshchenko, V. S.	116
Ter-Martirosyan, K. A.	127
Tertulian, N.	21
Teshayev, S.	97
Thanh Son	39
Thegner, G.	126
Thieme, Rolf	108
Thilliez, G.	75
Thomas, E. A.	83
Thomas, F.	103
Tikhomirov, O. B.	53
Tikhonov, G. F.	96
Til, Edwin	70
Timofeyev, B. S.	86
Timoshenko, Ya. K.	52
Tindo, I. P.	137
Tischer, G.	88
Tkachenko, V. I.	50
Tobias, V. I.	64
Todt, F.	110

Toitot, M.	104
Tokarev, S.	5
Tokareva, O. N.	84
Tolstikov, O.	14
Tolstikov, V.	9
Tolstikov, V. S.	10
Tolypin, Yu. M.	8
Tombalbaye,	25
Torssell, R.	104
Trakhbrot, B. M.	131
Tran Dai Nghia	31
Tran Dang Ninh	31, 36
Tran Huy Lieu	35
Tran Phu	34, 35
Tran Quang Phuong	31
Tret'yak, I.	13
Tret'yakov, A. A.	73
Tricot, R.	102
Tripsa, I.	102
Troberg, B.	108
Tromel, G.	104
Troost, A.	104
Trung Dung	34
Trushina, M. N.	62
Tsedenbal, Yumzhagiyn	9
Tserendorj, T.	33
Tsiperovich, O. S.	64
Tsyakovskiy, V. K.	72
Tsyplakov, A. M.	87
Tsyplakov, Ye. P.	59
Tubandt, C.	76, 110
	135
Tupolev, T. M.	58
Turpin, M.	104
Tychinin, V.	4
Tyrin, V.	4

- U -

Uakubovich, V. A.	45
Udovenko, S. A.	96
Udovenko, V.	2
Ueda, K.	78
Ueda, S.	136
Ukita, Yoshimasa	116
Ulay, S.	29
Ulbricht, Walter	20
Ulmann, J.	100
Uribe de Abello, Josefina	36
Urmakher, L. S.	80
Uryvskiy, F. P.	97
Usenko, Ye. T.	8
Ushakov, S. N.	57
Ushakov, V. B.	47, 84

Nild, E.	88
Witt, M.	111
Witte, S.	67
Wojciechowski, J.	69
Wojtolowski, G. K.	9
Wratil, J.	108
Wuppermann, G. Th.	109
Wyllie, E.	122

- Y -

Yakimov, N. N.	119
Yakobi, A. A.	4
Yakovenko, A.	7
Yakovlev, Yu. S.	85
Yakovleva, T. S.	87
Yakubovskiy, I. I.	14
Yakubovskiy, P.	14
Yamamoto, S.	114
Yampol'skiy, E.	6
Yanagihara, T.	113
Yanishevskiy, A. P.	125
Yanko, Ya. A.	98
Yanov, A.	42
Yanushkyavichyus, V.	4
Yasnov, M. A.	2, 8
Yavel'skiy, M. B.	89
Yavorskiy, I. A.	72
Yedel'shtein, K. K.	124
Yedrunes, M.	125
Yefimov, A.	5
Yefimov, P. I.	13
Yegorov, B.	6
Yegorov, I. M.	84
Yegorov, I. P.	85
Yegorov, V. A.	137
Yel'perin, I. T.	128
Yemel'yanov, V. S.	130
Yepiphanov, V. G.	92
Yepishev, A.	12
Yerkina, L. I.	72
Yerlykin, I. I.	119
Yershova, M. G.	124
Yesipova, I. K.	47
Yes'kov, A. G.	131
Yevdokimov, V. D.	128
Yevin, Ye.	13
Yevseyev, A.	12
Yevstaf'yeva, O. N.	71
Yevstyukhin, A. I.	130
Yeydel'man, M.	8
Yeygeles, M. A.	95
Yezhevskiy, A. A.	1
Yi Chol-bong	33
Yi Un-sik	33

Yonshida, K.	113
Yoshida, S.	112
Yoshida, Y.	112
Yoshitani, Y.	127
Yoshizo Inomata	79
Yshakov, S. N.	47
Yu Hung	31
Yu, I. A. T.	121
Yurisoo, Yu. B.	117
Yusan Tao	64
Yuse, A.	82

- Z -

Zabel, P.	109
Zahaczewski, R.	123, 136
Zahari, Shaul	27
Zaitsev, V.	53
Zakharov, M.	9
Zakharov, M. V.	13
Zaki, Yahya	42
Zakova, L. P.	61
Zalesskiy, V. I.	95
Zamikhovskiy, M.	3
Zamyslovsky, Z.	100
Zarcheva, Lilyana	15
Zarechnaya, S. N.	56
Zarvin, Ye. Ya.	94, 95
Zastawny, Wladyslaw	17
Zavarin, V. A.	118
Zaychik, K. S.	124
Zayitsev, V.	53
Zeke, Ference	28
Zel'ter, Yu. G.	97
Zemskiy, V. A.	51
Zemskov, G. V.	98
Zenkovich, B. A.	8
Zgurovskaya, L. N.	49
Zhalybin, V. I.	94
Zhdanova, G. A.	48
Zhitnik, I. A.	137
Zhivkov, Todor	9
Zhivkov, Zhivko	15
Zhivotkevich, N.	6
Zhogolev, Ye. A.	85
Zhukov, G.	12
Zhukov, P. I.	61
Zhukov, Yu.	10
Zhurakov, V. O.	119
Zic, Frane	19
Zielke, W.	122
Zimanas, G.	10
Zinnemann, Curt	9
Zintl, G.	78
Ziyadullayev, S.	2

Zlobin, V. K.	84
Zotov, M.	1
Zrelov, V. N.	137
Zuev, V. Ye.	44
Zuk, Jozef	43
Zuma, P.	133
Zverev, G. I.	138
Zver'kova, L. M.	61
Zurowski, E.	89
Zyabrev, V.	117
Zykov, F. N.	85
Zykov, S. A.	90

* * * *



Washington, D.C. 20505

7 September 2004

Ms. Roberta Schoen
Deputy Director for Operations
Defense Technical Information Center
7725 John J. Kingman Road
Suite 0944
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sergio N. Alcivar".

Sergio N. Alcivar
Chief, CIA Declassification Center,
Declassification Review and Referral
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)



Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed
by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0866011	78-03109A	63	1	8	145	Consolidated Translation Survey Through 31 January 1970	1/31/1970	237	Approved For Release	3/25/2004
AD0866891	78-03109A	64	1	1	146	Consolidated Translation Survey Through 28 February 1970	2/28/1970	237	Approved For Release	3/25/2004
AD0868214	78-03109A	64	1	2	147	Consolidated Translation Survey Through 31 March 1970	3/31/1970	222	Approved For Release	3/25/2004
AD0869588	78-03109A	64	1	3	148	Consolidated Translation Survey Through 30 April 1970	4/30/1970	225	Approved For Release	3/25/2004
AD0871388	78-03109A	64	1	4	149	Consolidated Translation Survey Through 31 May 1970	5/31/1970	286	Approved For Release	3/25/2004
AD0872361	78-03109A	64	1	5	150	Consolidated Translation Survey Through 30 June 1970	6/30/1970	339	Approved For Release	3/25/2004
AD0873815	78-03109A	64	1	6	151	Consolidated Translation Survey Through 31 July 1970	7/31/1970	274	Approved For Release	3/25/2004
AD0834385	78-03109A	47	1	4	17	Consolidated Translation Survey For May 1959	6/17/1959	193	Approved For Release	3/25/2004
AD0834386	78-03109A	47	1	5	18	Consolidated Translation Survey For June 1959	7/17/1959	177	Approved For Release	3/25/2004
AD0834387	78-03109A	47	1	6	19	Consolidated Translation Survey For July 1959	8/24/1959	254	Approved For Release	3/25/2004
AD0834388	78-03109A	47	1	7	20	Consolidated Translation Survey For August 1959	9/18/1959	209	Approved For Release	3/25/2004
AD0834389	78-03109A	47	1	8	21	Consolidated Translation Survey For September 1959	10/20/1959	261	Approved For Release	3/25/2004
AD0834491	78-03109A	47	1	9	22	Consolidated Translation Survey For October 1959	11/16/1959	181	Approved For Release	3/25/2004
AD0834492	78-03109A	47	1	10	23	Consolidated Translation Survey For November 1959	12/22/1959	214	Approved For Release	3/25/2004
AD0834493	78-03109A	47	1	11	24	Consolidated Translation Survey For December 1959	1/20/1960	202	Approved For Release	3/25/2004
AD0834494	78-03109A	47	1	12	25	Consolidated Translation Survey For January 1960	2/25/1960	198	Approved For Release	3/25/2004
AD0834495	78-03109A	47	1	13	26	Consolidated Translation Survey For February 1960	2/1/1960	248	Approved For Release	3/25/2004
AD0834496	78-03109A	48	1	1	27	Consolidated Translation Survey For March 1960	3/1/1960	223	Approved For Release	3/25/2004
AD0834497	78-03109A	48	1	2	28	Consolidated Translation Survey For April 1960	4/1/1960	287	Approved For Release	3/25/2004
AD0834498	78-03109A	48	1	3	29	Consolidated Translation Survey For May 1960	5/1/1960	312	Approved For Release	3/25/2004
AD0834499	78-03109A	48	1	4	30	Consolidated Translation Survey For June 1960	6/1/1960	277	Approved For Release	3/25/2004
AD0834500	78-03109A	48	1	5	31	Consolidated Translation Survey For July 1960	7/1/1960	186	Approved For Release	3/25/2004
AD0834501	78-03109A	48	1	6	32	Consolidated Translation Survey For August 1960	8/1/1960	317	Approved For Release	3/25/2004
AD0834502	78-03109A	48	1	7	33	Consolidated Translation Survey For September 1960	9/1/1960	287	Approved For Release	3/25/2004
AD0834503	78-03109A	48	1	8	34	Consolidated Translation Survey For October 1960	10/1/1960	322	Approved For Release	3/25/2004
AD0834504	78-03109A	48	1	9	35	Consolidated Translation Survey For November 1960	11/1/1960	289	Approved For Release	3/25/2004